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Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
        Applied Inverse Problems 2005: Call for Participation
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        SIAM Conference on Control and Its Applications
        Int'l Conference of Numerical Analysis, Applied Mathematics
        Postdoc in Applied Mathematics, Israel Institute of Technology
        Table of Contents: Linear Algebra and Its Applications

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: Simon ARRIDGE <S.Arridge@cs.ucl.ac.uk>
Subject: AIP2005 : 2nd announcement and call for participation
Date: Wed, 22 Dec 2004

This is the second announcement and call for participation for

        Applied Inverse Problems 2005
        Royal Agricultural College, Conference Centre,
        26-30 June 2005

web site:
        http://www.cs.ucl.ac.uk/aip2005/

NOTE:
Following several requests, the format of the meeting has been
expanded to include additional minisymposia.

Contributed minisymposia will be two hours in length. Those wishing to
propose a topic should contact up to four suitable speakers and obtain
their interest in participating. Please then send the following
information to aip2005-attendees-request@cs.ucl.ac.uk :

    1) title of session,
    2) name of minisymposium organiser,
    3) list of up to four speakers.

If posters or minisyposia talks are accepted a one page abstract will
be asked for and will be printed in the book of abstracts available at
the meeting. Instructions for the poster formats will appear later

Key dates:

  Application to attend   :   1st March 2005
  Notification of acceptance   : 21st March 2005
  Payment Due   :   1st April 2005

From: "Prof. Heinz W. Engl" <heinz.engl@jku.at>
Subject: Workshop on Level Set Methods for Direct and Inverse Problems

Date: Thu, 23 Dec 2004

Workshop on Level Set Methods for Direct and Inverse Problems
                 (Linz, Austria, September 14-16, 2005)

An international workshop on "Level Set Methods for Direct and Inverse
Problems" will be held in Linz, Austria from September 14 to 16, 2005.
This workshop is organized by the Special Research Area SFB F 013
"Numerical and Symbolic Scientific Computing" at the Johannes Kepler
University, and the Johann Radon Institute for Computational and
Applied Mathematics. The topics of the workshop are computational and
theoretical aspects of level set methods and related techniques for
geometric problems, and their applications to direct (geometric motion
and moving boundary problems) and inverse problems (shape
reconstruction and shape optimization).

INVITED SPEAKERS:

    Gregoire Allaire (Ecole Polytechnique, Paris, France)
    Antonin Chambolle (Ecole Polytechnique, Paris, France)
    Gerhard Dziuk (University Freiburg, Germany)
    Luis Caffarelli (University of Texas, Austin, USA)
    Michael Hintermueller (University Graz, Austria)
    Stanley Osher (University of California, Los Angeles, USA)
    Martin Rumpf   (University Bonn, Germany)
    Fadil Santosa (University of Minnesota, Minneapolis, USA)
    Otmar Scherzer (University Innsbruck, Austria)
    Yen-Hsi Richard Tsai (University of Texas, Austin, USA)
    Hongkai Zhao   (University of California, Irvine, USA)
    Jean-Paul Zolesio (INRIA, Sophia Antipolis, France)

A limited number of contributed talks related to the workshop topics
(about 20 minutes) will be accepted for presentation. If you intend to
contribute a talk, please send title and abstract until June 30, 2005,
to workshop@sfb013.uni-linz.ac.at.

A registration tool and further information on the workshop and location
will be available soon at the web site:
  http://www.sfb013.uni-linz.ac.at/conferences/sfb2005/

For questions please contact:
Martin Burger or Benjamin Hackl
Industrial Mathematics Institute
Johannes Kepler University
Altenbergerstr. 69
A 4040 Linz, Austria
e-mail: workshop@sfb013.uni-linz.ac.at

Submitted by:
Prof.Dr.Heinz W. Engl   E-Mail: heinz.engl@jku.at
Institut fuer Industriemathematik secretary: doris.nikolaus@jku.at
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Altenbergerstrasse 69   secretary: ext.9220
A-4040 Linz   Fax:ext. 8855
Oesterreich / Austria
World Wide Web: http://www.indmath.uni-linz.ac.at/
                             and
Johann Radon Institute for Computational and Applied Mathematics (RICAM),
Austrian Academy of Sciences; http://www.ricam.oeaw.ac.at
EMail: heinz.engl@oeaw.ac.at

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From: Kirsten Wilden <wilden@siam.org>
Subject: SIAM Conference on Control and Its Applications
Date: Tue, 14 Dec 2004

DEADLINE EXTENDED!!

Conference Name: Sixth SIAM Conference on Control and Its Applications,
being held jointly with the 2005 SIAM Annual Meeting

Location: Hilton New Orleans Riverside Hotel, New Orleans, Louisiana

Dates: July 11-14, 2005

Invited Plenary Speakers
 Marie Csete, Emory University
 Mrdjan Jankovic, Ford Research and Advanced Engineering
   (Joint Plenary Speaker with the 2005 SIAM Annual Meeting)
 Naomi Leonard, Princeton University
 William Levine, University of Maryland, College Park
 William McEneaney, University of California, San Diego
 Igor Mezic, University of California, Santa Barbara
 Thaleia Zariphopoulou, University of Texas, Austin

Invited Topical Speaker
 Matthias Heinkenschloss, Rice University
   (Joint Topical Speaker with the 2005 SIAM Annual Meeting)

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/ct05/

                        **Deadlines**

Minisymposium proposals:  January 7, 2005  (New Deadline!)

Abstracts for all contributed and minisymposium presentations:
January 7, 2005

For additional information, contact the SIAM Conferences Department at
meetings@siam.org.

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From: "Dr.Theodore Simos" <tsimos@mail.ariadne-t.gr>
Subject: ICNAAM 2005
Date: Sun, 26 Dec 2004

FIRST ANNOUNCEMENT and CALL FOR PAPERS

International Conference of Numerical Analysis and Applied Mathematics
2005 (ICNAAM 2005),

Hotel Esperides, Rhodes, Greece,
16-20 September 2005.

URL address: http://www.uop.gr/~icnaam/

The aim of ICNAAM 2005 is to bring together leading scientists of the
international Numerical & Applied Mathematics community and to attract
original research papers of very high quality. The topics to be
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covered include (but are not limited to): All the research areas of
Numerical Analysis and Computational Mathematics and all the research
areas of Applied Mathematics:
(see http://www.uop.gr/~icnaam/topics.htm).

Chairman and Organizer

Prof. T.E. Simos, Active Member of the European Academy of Sciences
and Arts and Corresponding Member of the European Academy of Sciences,
Corresponding Member of European Academy of Arts, Sciences and
Humanities, Department of Computer Science and Technology, Faculty of
Sciences and Technology, University of Peloponnese, Greece

Vice-Chairmen:

Dr. Ch. Tsitouras, Technological Educational Institute of Chalkis,
Greece.
Dr. G. Psihoyios, Anglia Polytechnic University , Cambridge, UK.

Scientific Committee:

Prof. G. vanden Berghe, Belgium, Prof. S.C. Brenner, USA, Prof. R.
Cools, Belgium, Prof. A. Cuyt, Belgium, Prof. B. Fischer, Germany,
Prof. R. W. Freund, USA, Prof. I. Gladwell, USA,
Prof. B. Hendrickson, USA, Prof. Marlis Hochbruck, Germany,
Dr. G. Psihoyios, UK, Prof. T.E. Simos, Greece, Prof. W.Sproessig,
Germany, Dr. Ch. Tsitouras, Greece, Prof. G. Alistair Watson, UK.

Proceedings:

Extended abstracts will be published in a Special Volume of Wiley-VCH.
The journals in which selected Proceedings of ICNAAM 2005 will be
published are: (i) Applied Numerical Analysis and Computational
Mathematics (ANACM) (Wiley-VCH). This is the official journal of
European Academy of Computational Methods in Sciences and Engineering
and (ii) Mathematical Methods in the Applied Sciences (Wiley & Sons).

Call for Sessions Workshops and Minisymposia:

We invite proposals for Sessions, Workshops or Minisymposia. Each
session should have at least 8 paper presentations. For this session
the organiser or his team can have at most 2 papers. Each workshop or
minisymposium should have at least 10 paper presentations. For this
workshop or minisymposium the organiser or his team can have at most 2
papers. The Session, Workshop or Minisymposium organizer will be
responsible for advertising the workshop, reviewing and selecting the
papers. The Session organisers will have free registration in ICNAAM
2005. The Workshop or Minisymposium organizers will have free
registration and a participation in the Accommodation. Papers accepted
for Sessions, Workshops or Minisymposia will be published in the
Proceedings of ICNAAM 2005. After the Conference the papers presented
at the Sessions, workshops or Minisymposia will be considered for
publication in the appropriate journals.

Proposals to organize Sessions, Workshops or Minisymposia should
include the following information: Title of the workshop; name,
affiliation, mailing address and e-mail address of the proposer(s);
description of the topic of the session (not exceeding 100 words); a
short description on how the session will be advertised. The deadline
for proposal submission is May 31, 2005. Please send your proposal to

icnaam@uop.gr

Call for papers

You are invited to submit a paper and/or a proposal to organize a
workshop. See Call for Papers for paper submission information. All
accepted papers will be published in the conference proceedings,
printed by Wiley-VCH (see http://www.uop.gr/~icnaam/proceeding.htm).
A selected number of papers will also be published as special issues
of appropriate journals (see
http://www.uop.gr/~icnaam/proceeding.htm). Deadline for submission of
paper: June 30, 2005.

Contact information:

Secretary ICNAAM, E-mail: icnaam@uop.gr, Postal Address: 26 Menelaou
Street, Amfithea Paleon Faliron, GR-175 64, Athens, Greece, Fax: +30210
94 20 091 or + 302710 237 397

From: "yehuda" <agnon@techunix.technion.ac.il>
Subject: Postdoc in Applied Mathematics
Date: Thu, 9 Dec 2004

POST-DOC in Applied-Mathematics (nonlinear water waves)

Applications are invited for a Post Doctoral Research Associate
position at the Technion, Israel Institute of Technology, Haifa.

The position is available immediately for two years (possibly three
years) in the group working in the fields of deterministic and
stochastic nonlinear water wave dynamics and forecasting. Knowledge of
any of the following disciplines will be an additional advantage:
Nonlinear PDE's, asymptotic analysis, stochastic processes, Numerical
methods.

The candidate must have a Ph.D. obtained recently (not more than 3-4
years ago). The laboratory locates in a very nice University Campus,
close to the city center. Friendly environment will provide easy
adaptation to the new place, but fluent English is required. The
fellowship will be up to about US$ 1,900, according to qualifications.

Candidates should send C.V. and list of publications to
Prof. M. Stiassnie or Prof. Y. Agnon, Civil and Environmental
Engineering, Technion, Haifa 32000, Israel.

To expedite the application, please Email: agnon@tx.technion.ac.il

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From: Hans Schneider <hans@math.wisc.edu>
Subject: LAA contents
Date: Fri, 10 Dec 2004

Linear Algebra and its Applications   15 January 2005   Vol. 395
                         Table of Contents

A family of inequalities originating from coding of messages
Joel E. Cohen, Johannes H.B. Kemperman and Gheorghe H. Zbaganu

On the sensitivity of the spectral projection

Ji-Guang Sun

Equality of immanantal decomposable tensors, II
Henrique F. da Cruz and J.A. Dias da Silva

Asymptotic behavior of the condition number of two-level Toeplitz
matrix sequences   D. Noutsos, S. Serra Capizzano and P. Vassalos

The generalized spectral radius is strictly increasing
Fabian Wirth

Eigenvalues and perfect matchings
Andries E. Brouwer and Willem H. Haemers

Siegel transformations for even characteristic
Erich W. Ellers and Oliver Villa

Lengths of finite dimensional representations of PBW algebras
D. Constantine and M. Darnall

A note on eigenvalues of perturbed Hermitian matrices
Chi-Kwong Li and Ren-Cang Li

Connections between the total least squares and the correction of an
infeasible system of linear inequalities
Paula Amaral and Pedro Barahona

The determinantal regions of complex sign pattern matrices and ray
pattern matrices   Jia-Yu Shao and Hai-Ying Shan

Ray solvable linear systems and ray S^2NS matrices
Jia-Yu Shao, Hai-Ying Shan and Li-Hua You

Mixed mean inequalities for several positive definite matrices
Yongjian Hu, Xiuping Zhang and Zhenghong Yang

The Witt kernels of purely inseparable quartic extensions
Hamza Ahmad

Spectral theory of copositive matrices
Charles R. Johnson and Robert Reams

Asymptotic behavior of solutions of perturbed linear difference
systems   Guojing Ren, Yuming Shi and Yi Wang

$(±1)$-Invariant sequences and truncated Fibonacci sequences
Gyoung-Sik Choi, Suk-Geun Hwang, Ik-Pyo Kim and Bryan L. Shader

Perturbation analysis for solutions of $X ± A^*X^{-n}A=Q$
I.G. Ivanov

Additive rank-1 preservers between hermitian matrix spaces and
applications   Xiao-Min Tang

The spectral radius of trees on k pendant vertices
Baofeng Wu, Enli Xiao and Yuan Hong

On trace inequalities and their applications to noncommutative
communication theory
Kenjiro Yanagi, Shigeru Furuichi and Ken Kuriyama

Some stability properties of T. Chan's preconditioner
Che-Man Cheng and Xiao-Qing Jin

On the construction of nearest defective matrices to a normal matrix
Rafikul Alam

Submitted by: Hans Schneider
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Math Dept Fax: 608-263-8891   http://www.math.wisc.edu/~hans
------- end -------

Submitted by: Hans Schneider

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
     Second Int'l. Conference on Nonsmooth/Nonconvex Mechanics
     SIAM Conference on Mathematics for Industry
     SIAM Conference on Mathematical/Computational Geosciences
     SIAM Conference on Control and Its Applications
     New Book: "Parameter Estimation and Inverse Problems"
     SIAM Membership in Developing Countries
     Table of Contents: Inverse Problems
     Table of Contents: Journal of Applied Mathematics
        Table of Contents: Linear Algebra and Its Applications

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: "Georgios E. Stavroulakis" <gestavr@cc.uoi.gr>
Subject: Second Int'l Conference on Nonsmooth/Nonconvex Mechanics
Date: Mon, 31 Jan 2005

Second International Conference
on
Nonsmooth/Nonconvex Mechanics
with Applications in Engineering

Faculty of Engineering
Aristotle University of Thessaloniki
7 & 8 July, 2006

Research Topics:

    * Contact Mechanics - Friction & stick-slip effects
    * Elastoplasticity - Shakedown - Limit Analysis
    * Convex Analysis and Mechanics
    * Nonsmooth Analysis and Optimization
    * Nonconvex Mechanics and Duality
    * Variational, quasivariational and hemivariational inequalities
    * Energy methods in Mechanics and Structural Analysis
    * Nonsmooth Dynamics
    * Structural Optimization
    * Structural Control and Identification
    * Computational Mechanics
    * Applications
    * Mathematical Analysis and Approximation results
    * Innovative topics (like Chaotic behaviour, Fractal approximation,
      Neural Networks etc.)

Deadlines:

Submission of Abstract by May 1, 2005
Preliminary acceptance by July 30, 2005
Submission of full paper by February 28, 2006

Conference Secretariat

c/o Professor Dr.-Ing. C.C. Baniotopoulos
Institute of Steel Structures, Department of Civil Engineering
Aristotle University, GR-54124 Thessaloniki, Greece
Tel.: +30 2310 99 5753 Fax: +30 2310 99 5642
E-mail: nnmae2006@civil.auth.gr

Further information can be found in the WWW page
http://www.civil.auth.gr/nnmae2006/

Submitted by:
Georgios E. Stavroulakis
Assoc. Prof., University of Ioannina, Greece
http://www.math.uoi.gr/~gestavr

From: Kirsten Wilden <wilden@siam.org>
Subject: SIAM Mathematics for Industry CFP Deadlines
Date: Tue, 04 Jan 2005

Subject: SIAM Conference on Mathematics for Industry: Challenges and
Frontiers CFP Deadlines

Conference Name: SIAM Conference on Mathematics for Industry:
Challenges and Frontiers

Location: Detroit Marriott Renaissance Center, Detroit, Michigan

Dates: October 24-26, 2005

Invited Plenary Speakers:

Paul Deitz, Army Research Laboratories
Debra Elkins, General Motors
Steven Graves, Massachusetts Institute of Technology
Karl Kempf, Intel Corporation
Alan King, IBM T. J. Watson Research Center
Burton Smith, Cray Research

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/mi05/

                          Deadlines

Minisymposium proposals: March 25, 2005

Abstracts for all contributed and minisymposium presentations: April 25,
2005

For additional information, contact SIAM Conference Department at
meetings@siam.org.

From: Kirsten Wilden <wilden@siam.org>
Subject: SIAM Conference on Mathematical and Computational Issues in
the Geosciences
Date: Wed, 05 Jan 2005

Subject: SIAM Conference on Mathematical and Computational Issues in the Geosciences - Registration Now Available!

Conference Name: SIAM Conference on Mathematical and Computational Issues in the Geosciences

Location: Palais des Papes, The International Conference Center, Avignon, France

Dates: June 7-10, 2005

Invited Plenary Speakers:
Clint Dawson, The University of Texas, Austin
Geir Evensen, Norsk Hydro, Oil & Energy Research Centre, Bergen, Norway
J.M. Huyghe, Eindhoven University of Technology, The Netherlands
Jerome Jaffre, INRIA-Rocquencourt, France
Bruno Sportisse, CEREA (Ecole Nationale des Ponts et Chaussees/EFD R&D)
Gabriel Wittum, University of Heidelberg, Germany

Registration is Now Available!

Hotel Reservation Deadline: March 1, 2005
Pre-Registration Deadline: May 6, 2005

Registration for this conference is available at:
http://www.siam.org/meetings/gs05/

For additional information, contact the SIAM Conference Department at meetings@siam.org.

From: Kirsten Wilden <wilden@siam.org>
Subject: SIAM Conference on Control and Its Applications
Date: Tue, 18 Jan 2005

New Deadlines

Conference Name: Sixth SIAM Conference on Control and Its Applications, being held jointly with the 2005 SIAM Annual Meeting

Location: Hilton New Orleans Riverside Hotel, New Orleans, Louisiana

Dates: July 11-14, 2005

Invited Plenary Speakers
Marie Csete, Emory University
Mrdjan Jankovic, Ford Research and Advanced Engineering
(Joint Plenary Speaker with the 2005 SIAM Annual Meeting)
Naomi Leonard, Princeton University
William Levine, University of Maryland, College Park
William McEneaney, University of California, San Diego
Igor Mezic, University of California, Santa Barbara
Thaleia Zariphopoulou, University of Texas, Austin

Invited Topical Speaker
Matthias Heinkenschloss, Rice University
(Joint Topical Speaker with the 2005 SIAM Annual Meeting)

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/ct05/

                              Deadlines
New Deadlines!
Minisymposium proposals: February 1, 2005

Abstracts for all contributed and minisymposium presentations:
February 1, 2005

For additional information, contact the SIAM Conferences Department at
meetings@siam.org.

From: Brian Borchers <borchers@nmt.edu>
Subject: New Book: "Parameter Estimation and Inverse Problems"
Date: Mon, 03 Jan 2005

Parameter Estimation and Inverse Problems
by
Richard Aster, Brian Borchers, and Clifford H. Thurber.

Published by Academic Press. ISBN: 0120656043.

This book is based on courses in inverse problems for advanced
undergraduate and graduate students in the earth sciences that have
been taught at New Mexico Tech and the University of Wisconsin-Madison
by the authors. For more information on the course and the textbook,
see

  http://www.ees.nmt.edu/Geop/Classes/GEOP529.html

From: michelle montgomery <montgomery@siam.org>
Subject: SIAM membership in developing countries
Date: Mon, 24 Jan 2005

Subject: SIAM membership in developing countries

SIAM offers an affordable membership option for individuals who live
and work in developing countries. This category of membership, called
"outreach membership," was created to help make SIAM products and
services accessible to a wider and more global group of applied and
computational mathematicians. This is a great alternative for
individuals who reside in developing countries who cannot afford the
full SIAM dues. For just $10 per year, eligible individuals receive
many member benefits.

Outreach members receive all print issues of SIAM News and
electronic-only access to SIAM Review. They can join any of the SIAM
Activity Groups at $10 per group, are entitled to 30% off list prices
on all SIAM books, and receive member discounted registration at SIAM
sponsored meetings. No additional journal subscriptions at membership
rates are available as part of the outreach membership.

Outreach membership is not based on country of citizenship, but on
current country of residence. The list of developing countries that
qualify for Outreach Membership can be found at
http://www.siam.org/membership/outreach_list.htm.

For more information go to
http://www.siam.org/membership/outreachdesc.htm. You can join online
at http://www.siam.org/cust_serv or download an application at
http://www.siam.org/membership/outreach_2005.pdf.

If you have any questions about Outreach Membership, contact
membership@siam.org or Membership Manager Susan Whitehouse at
whitehouse@siam.org.

From: liz.martin@iop.org
Subject: Contents, Inverse Problems, Volume 21, Issue 1, February 2005
Date: Mon, 24 Jan 2005

Inverse Problems   February 2004   Volume 21, Issue 1
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Hierarchical Bayesian models for inverse problems in heat conduction
J Wang and N Zabaras

The use of constraints for solving inverse scattering problems:
physical optics and the linear sampling method
M Brignone and M Piana

Numerov's method for inverse Sturm--Liouville problems   A L Andrew

Reconstruction of an unknown boundary portion from Cauchy data in n
dimensions   K Bryan and L Caudill

Formulae and equations for finding scattering data from the
Dirichlet-to-Neumann map with nonzero background potential
R G Novikov

Global uniqueness and H\"older stability for recovering a nonlinear
source term in a parabolic equation
H Egger, H W Engl and M V Klibanov

On the determination of the generalized force field from a
two-parametric family of orbits on a given surface   T A Kotoulas

Quasi-Newton methods for large-scale electromagnetic inverse problems
E Haber

Inverse resonance scattering on the real line   E Korotyaev

Homogeneous two-parametric families of orbits in three-dimensional
homogeneous potentials   G Bozis and T A Kotoulas

An analytical comparison of three spatio-temporal regularization
methods for dynamic linear inverse problems in a common statistical
framework   Y Zhang, A Ghodrati and D H Brooks

An application of the reciprocity gap functional to inverse scattering
theory
D Colton and H Haddar

Convergence rates in the Prokhorov metric for assessing uncertainty in
ill-posed problems   H W Engl, A Hofinger and S Kindermann

A new formulation of the probe method and related problems
M Ikehata

All articles are free for 30 days after publication on the web. This
issue is available at: http://stacks.iop.org/0266-5611/21/i=1

We are pleased to announce that subscription to Inverse Problems in
2005 is exactly the same price as in 2004 - £889! For further
information contact us at custserv@iop.org.

Journal of Applied Mathematics   2004   Volume 2004, Issue 4
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Journal of Applied Mathematics   2004   Volume 2004, Issue 5
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Please visit http://jam.hindawi.com/volume-2004/issue-5.html for
the abstracts and links to the full-text articles. This issue
contains the following article/s.

Journal of Applied Mathematics   2004   Volume 2004, Issue 6
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Please visit http://jam.hindawi.com/volume-2004/issue-6.html for
the abstracts and links to the full-text articles. This issue
contains the following article/s.

N. I. Kavallaris and V. Zisis

A linear numerical scheme for nonlinear BSDEs with uniformly
continuous coefficients   Omid. S. Fard and Ali. V. Kamyad

Error bound analysis and singularly perturbed Abel-Volterra equations
Angelina M. Bijura

Osiris wavelets and Set wavelets   Guy Battle

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Join the "JAM Alert" by entering your email on the JAM
web page.

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On the solution of Stein's equation and Fisher's information matrix of
an ARMAX process   André Klein and Peter Spreij

Nilpotent linear transformations and the solvability of
power-associative nilalgebras
Ivan Correa, Irvin Roy Hentzel, Pedro Pablo Julca and Luiz Antonio
Peresi

A structure-preserving doubling algorithm for continuous-time
algebraic Riccati equations
E.K.-W. Chu, H.-Y. Fan and W.-W. Lin

On generalized H -matrices
Ting-Zhu Huang, Shu-Qian Shen and Hou-Biao Li

Linear/additive preservers of rank 2 on spaces of alternate matrices
over fields   Xian Zhang

On the sensitivity of Lanczos recursions to the spectrum
Vladimir Druskin, Liliana Borcea and Leonid Knizhnerman

Geometry of skew-Hermitian matrices
Li-Ping Huang and Zhe-Xian Wan

Linear maps preserving Drazin inverses of matrices over fields
Changjiang Bu

Some functions reversing the order of positive operators
Josip Pecaric and Jadranka Micic

Symmetric triality relations and structurable algebras
Susumu Okubo

On the comparison of some realizability criteria for the real
nonnegative inverse eigenvalue problem
Ricardo Soto, Alberto Borobia and Julio Moro

The exponent and circumdiameter of primitive digraphs

L.F. Dame, D.D. Olesky and P. van den Driessche

A Perron Theorem for positive componentwise bilinear maps
Joseph E. Carroll, Timothy Lauck and Roland H. Lamberson

On sensitivity of eigenvalues and eigendecompositions of matrices
R. Alam and S. Bora

Combinatorial designs with two singular values II. Partial geometric
designs   E.R. van Dam and E. Spence

A pathway to matrix-variate gamma and normal densities   A.M. Mathai

Convex invertible sets and matrix sign function
Izchak Lewkowicz, Leiba Rodman and Elad J. Yarkoni

Convergence of logarithmic trace inequalities via generalized
Lie-Trotter formulae   Takayuki Furuta

The geometric mean decomposition
Yi Jiang, William W. Hager and Jian Li

The structure of alternating-Hamiltonian matrices
William C. Waterhouse

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published since volume 1 (1968) and also papers now in press,
see www.sciencedirect.com .

Submitted by: Hans Schneider
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------- end -------

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
     Workshop on Inverse Problems, Multi-Scale Analysis, Homogenization
     Sixth International Electrical Impedance Tomography Conference
     SIAM Conference on Optimization
     Int'l Conference of Numerical Analysis and Applied Mathematics
     Table of Contents: Inverse Problems in Science and Engineering

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: Habib AMMARI <ammari@cmapx.polytechnique.fr>
Subject: Workshop on Inverse Problems, Multi-Scale Analysis,
Homogenization
Date: Mon, 14 Feb 2005

           Inverse Problems, Multi-Scale Analysis and Homogenization
                        June 22-24, 2005
                     Seoul National University

Workshop Topics:
Recent development in inverse problems, multi-scale analysis, and
homogenization reveals that these fields share several fundamental
concepts in common. The main purpose of this workshop is to bring
together researchers coming from these fields to share their new ideas
and to earn benefit from others different viewpoints.

Invited Speakers:
Elena Beretta, Eric Bonnetier, Yves Capdeboscq, Andrej Cherkaev, Soon
Young Chung, Mathias Fink, Leslie Greengard, Tomas Hou, Masaru
Ikehata, Jun Yub Lee, Mikyoung Lim, Graeme Milton, Gen Nakamura, Jin
Keun Seo, Gunther Uhlmann, Michael Vogelius.

Homepage:
http://www.math.snu.ac.kr/bk21/workshop/

From: "Richard Bayford" <r.bayford@ucl.ac.uk>
Subject: VIth International Electrical Impedance Tomography Conference
Date: Wed, 2 Feb 2005

VIth INTERNATIONAL EIT CONFERENCE IN LONDON, UK. JUNE 22-24th, 2005.

As agreed at the last conference in Gdansk, we are pleased to announce
that there will be another conference in London in June. This will
run along similar lines to the previous EPSRC network conferences
1999 - 2001. It will last from lunchtime to lunchtime from a
Wednesday to Friday. There will be only one forum - no parallel

sessions, with short presentations of 15 minutes each including
questions, and lots of time for discussions. It will take place in
central London, at University College London, in a brand new
and comfortable lecture on the main UCL campus (www.ucl.ac.uk).

There will four topic areas : Reconstruction algorithms,
instrumentation, clinical applications, and new developments
(MR-EIT, MIT). Abstracts will not be accepted on subjects outside
biomedical EIT, in order to keep the conference focused.

If you would like to apply, please email us at eitlist@mail.com with
a brief abstract (max 300 words) of your proposed topic, and the
intended subject area. At present, we hope to make all accepted
presentations oral, but it may be necessary to create some poster ones
if there are many submissions. If you are submitting more than one
abstract, please identify which is your preferred topic for oral
presentation.

Timetable.

 March 4, 2005:   Applications and abstract submission.
 March 14, 2005:   Notification of acceptance.
 June 6, 2005:   Submission of 4 page paper for conference handbook
 June 22-24, 2005: Conference (starting at 1 pm Wednesday 22/6/05 with
lunch,
                   ending 2 pm Friday 24/6/05).

Submitted by: Dr. Richard Bayford

From: "Darrell Ross" <ross@siam.org>
Subject: SIAM Conference on Optimization
Date: Mon, 31 Jan 2005

Conference Name: SIAM Conference on Optimization

Location: Norra Latin, City Conference Centre, Stockholm, Sweden

Dates: May 15 - 19, 2005

The Preliminary Program is now available. Please visit:
    http://www.siam.org/meetings/OP05/

For additional information, contact SIAM Conference Department at
meetings@siam.org

Regards,

Darrell Ross
SIAM, Conference Program Manager
Conference Web Master
ross@siam.org

PLEASE NOTE: International attendees planning to attend conferences in
the USA may already be aware that there have been recent changes to the
visa program for scientific visitors, which affect even people from visa
waiver countries. The site http://www7.nationalacademies.org/visas/
maintained by the National Academies, provides guidance on obtaining the
necessary documents.

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

International Conference of Numerical Analysis and Applied Mathematics
2005
(ICNAAM 2005),

Hotel Esperides, Rhodes, Greece,
16-20 September 2005.

URL address: http://www.uop.gr/~icnaam/

The aim of ICNAAM 2005 is to bring together leading scientists of the
international Numerical & Applied Mathematics community and to attract
original research papers of very high quality. The topics to be
covered include (but are not limited to): All the research areas of
Numerical Analysis and Computational Mathematics and all the research
areas of Applied and Industrial Mathematics:
(see http://www.uop.gr/~icnaam/topics.htm).

Chairman and Organizer

Prof. T.E. Simos, Active Member of the European Academy of Sciences
and Arts and Corresponding Member of the European Academy of Sciences,
Corresponding Member of European Academy of Arts, Sciences and
Humanities, Department of Computer Science and Technology, Faculty of
Sciences and Technology, University of Peloponnese, Greece

Vice-Chairmen:

Dr. Ch. Tsitouras, Technological Educational Institute of Chalkis,
Greece.
Dr. G. Psihoyios, Anglia Polytechnic University , Cambridge, UK.

Scientific Committee:

Prof. G. vanden Berghe, Belgium, Prof. S.C. Brenner, USA,
Prof. R. Cools, Belgium, Prof. A. Cuyt, Belgium, Prof. B. Fischer,
Germany, Prof. R. W. Freund, USA, Prof. I. Gladwell, USA,
Prof. B. Hendrickson, USA, Prof. Marlis Hochbruck, Germany,
Dr. G. Psihoyios, UK, Prof. T.E. Simos, Greece, Prof. W.Sproessig,
Germany, Dr. Ch. Tsitouras, Greece, Prof. G. Alistair Watson, UK.

Proceedings:

Extended abstracts will be published in a Special Volume of
Wiley-VCH. The journals in which selected Proceedings of ICNAAM 2005
will be published are: (i) Applied Numerical Analysis and
Computational Mathematics (ANACM) (Wiley-VCH). This is the official
journal of European Academy of Computational Methods in Sciences and
Engineering and (ii) Mathematical Methods in the Applied Sciences
(Wiley & Sons).

Call for Sessions Workshops and Minisymposia:

We invite proposals for Sessions, Workshops or Minisymposia. Each session should have at least 8 paper presentations. For this session the organiser or his team can have at most 2 papers. Each workshop or minisymposium should have at least 10 paper presentations. For this workshop or minisymposium the organiser or his team can have at most 2 papers. The Session, Workshop or Minisymposium organizer will be responsible for advertising the workshop, reviewing and selecting the papers. The Session organisers will have free registration in ICNAAM 2005. The Workshop or Minisymposium organizers will have free registration and a participation in the Accommodation. Papers accepted for Sessions, Workshops or Minisymposia will be published in the Proceedings of ICNAAM 2005. After the Conference the papers presented at the Sessions, workshops or Minisymposia will be considered for publication in the appropriate journals.

Proposals to organize Sessions, Workshops or Minisymposia should include the following information: Title of the workshop; name, affiliation, mailing address and e-mail address of the proposer(s); description of the topic of the session (not exceeding 100 words); a short description on how the session will be advertised. The deadline for proposal submission is May 31, 2005. Please send your proposal to icnaam@uop.gr

Procedures for the approval of a proposal for a session-workshop or minisymposium:

1. The organiser must send us a proposal for the organisation of a session-workshop or minisymposium
2. The organiser must provide us with a small description of his/her proposal (no more than 150 words)
3. The organiser must provide us with his/her short CV
4. The organiser must inform us about the procedures which he/she will follow for the promotion of this session-workshop or minisymposium (the organiser is responsible for the promotion)
5. The organiser must provide us with full affiliations of his/hers including an e-mail to which someone can send a paper on the subject of the session-workshop or minisymposium.

After approval the organiser will be responsible for the selection of the papers. The papers must be send to us until June 25, 2005. In the Proceedings of ICNAAM 2005 (which will be published by Wiley-VCH) the session-workshop or minisymposium will be in a separate section of the Volume with a Preface written by the organiser. From time to time the organiser must inform us about the participation of his/her session. If a session consists of at least 6 registrations then the registration of the organiser in ICNAAM 2005 is free. If a symposium consists of at least 8 registrations then the organiser will have free registration and a part of the accommodation fee.

Call for papers

You are invited to submit a paper and/or a proposal to organize a workshop. See Call for Papers for paper submission information. All accepted papers will be published in the conference proceedings, printed by Wiley-VCH (see http://www.uop.gr/~icnaam/proceeding.htm). A selected number of papers will also be published as special issues of appropriate journals (see http://www.uop.gr/~icnaam/proceeding.htm). Deadline for submission of paper: June 30, 2005.

Contact information:

Secretary ICNAAM, E-mail: icnaam@uop.gr, Postal Address: 26 Menelaou
Street,
Amfithea Paleon Faliron, GR-175 64, Athens, Greece, Fax: +30210 94 20
091 or +302710 237 397

Submitted by:
Professor Dr. T.E. Simos, Academician
Department of Computer Science and Technology,
Faculty of Sciences and Technology,
University of Peloponnese, GR-221 00 Tripolis, GREECE.
Postal Address:
26 Menelaou Street, Amfithea - Paleon Faliron, GR-175 64 Athens, GREECE.
E-mail: tsimos@mail.ariadne-t.gr

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Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
        PDE-Based Image Processing and Related Inverse Problems
        Radon Institute, Special Semester on Computational Mechanics
        Fabes Lectures 2005
        ModelCARE 2005 Netherlands Course
        SIAM 2005 Annual Meeting
        SIAM Conference on Control and Its Applications
        SIAM Conference on Mathematics for Industry
        SIAM Conference on Geometric Design & Computing
        ACM-SIAM Symposium on Discrete Algorithms
        Call for Papers: Int'l Journal of Tomography & Statistics
        Table of Contents: Inverse Problems
        Table of Contents: Int'l Journal of Tomography & Statistics
        Table of Contents: Mathematics of Control, Signals, and Systems
        Table of Contents: Nonlinear Analysis: Modelling and Control

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: Ola Marius Lysaker <mariul@simula.no>
Subject: PDE-Based Image Processing and Related Inverse Problems
Date: Mon, 28 Feb 2005

An international conference on "PDE-Based Image Processing and Related
Inverse Problems", August 8-12, 2005 in Oslo, Norway.
http://www.cma.uio.no/conferences/2005/imageprocessing_workshop.html

The purpose of this conference is to have international experts to
come to Oslo and exchange new ideas and results in this field. The
conference will focus on, but will not be limited to the following
topics for image analysis and processing:

 * Noise analysis and removal
 * Image inpaiting
 * Image segmentation
 * 3D image analysis including shading, motion, shape and edge detection
 * Analysis and processing of MR images and brain mapping
 * Diffusion-tensor image analysis
 * Simulation and image techniques for ECG and other medical techniques
 * Image processing and data mining for Internet communication and
   information technology.

Inverse problems for partial differential equations have large areas
of applications. One widely studied application is for oil reservoir
simulations. Although image analysis and PDE inverse problems seem to
be unrelated at a first glance, there are many techniques used in one
of these two areas that are useful for the other. For example, many of
the regularization techniques and segmentation ideas used for image
processing have found interesting applications in inverse problems
within oil reservoir modeling. We shall use this conference to

highlight some of the recent efforts in merging some of the techniques
for these two research areas.

Invited Speakers:
Raymond Chan, Chinese University of Hong Kong
Tony F. Chan, University of California at Los Angeles
Stanley Osher, University of California at Los Angeles
Guillermo Sapiro, University of Minnesota
Joachim Weickert, Saarland University

Registration:
No fee will be charged for participating in the conference. However,
registration is needed to plan the scale for the conference. The total
number of participants will be limited.

Please use our electronic registration page,
http://www.cma.uio.no/conferences/2005/imageprocessing_registration.html

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From: "Prof. Heinz W. Engl" <heinz.engl@jku.at>
Subject: Radon Institute, Special Semester on Computational Mechanics
Date: Tue, 8 Mar 2005

The Johann Radon Institute for Computational and Applied Mathematics
(Linz, Austria) hosts a Special Semester on Computational Mechanics
from October through December 2005. The program committee is chaired
by Prof.Ulrich Langer.

The current status of the programm and information about possible
participation and funding possibilities can be found on our webpage

        www.ricam.oeaw.ac.at

following the link "Special Radon Semester 2005",

A program for 2006 will be announced soon.

Prof.Dr.Heinz W. Engl   E-Mail: heinz.engl@jku.at
Institut fuer Industriemathematik secretary: doris.nikolaus@jku.at
Johannes-Kepler-Universitaet   Phone:+43-(0)732-2468...,ext.9219 or
8693,
Altenbergerstrasse 69   secretary: ext.9220
A-4040 Linz   Fax:ext. 8855
Oesterreich / Austria
                World Wide Web: http://www.indmath.uni-linz.ac.at/
                                 and
Johann Radon Institute for Computational and Applied Mathematics (RICAM),
Austrian Academy of Sciences; http://www.ricam.oeaw.ac.at
                    EMail: heinz.engl@oeaw.ac.at

From: Giovanni Alessandrini <alessang@univ.trieste.it>
Subject: Fabes Lectures 2005
Date: Tue, 22 Mar 2005

        FABES LECTURES 2005, FIRST ANNOUNCEMENT

The seventh edition of the Fabes Lectures shall take place at the
University of Trieste, Italy, on 8-9-10 september 2005.
The following speakers have accepted to contribute with a talk:

* Russell Brown (University of Kentucky)
      * Luis Escauriaza (EHU, Bilbao)
      * Hyeonbae Kang (Seoul National University)
      * C. Kenig (University of Chicago)
      * R. Magnanini (Firenze)
      * A. Morassi (Udine)
      * L. Paivärintä (Rolf Nevanlinna-Institute, Helsinki)
      * Alberto Ruiz Gonzalez (Universidad Autonoma, Madrid)
      * J.K. Seo (Yonsei University, Seoul)
      * G. Uhlmann (University of Washington, Seattle)

The relevant information shall be posted in due time on the web page

     http://www.dmi.units.it/~rondi/fabes/

Those interested to attend are invited to kindly communicate it to the
address: rondi@units.it

The organizers:
Giovanni Alessandrini, Universita' di Trieste, Italy
Sandro Salsa, Politecnico di Milano, Italy
--
Prof. Giovanni Alessandrini

Dipartimento di Matematica e Informatica,
Università degli Studi di Trieste, 34100
Trieste, Italy
http://www.dmi.units.it/~alessang/
PHONE: 39 040 558 2628   FAX: 39 040 558 2636

From: "IGWMC" <igwmc@mines.edu>
Subject: ModelCARE 2005 Netherlands Course
Date: Fri, 18 Mar 2005

In conjunction with the ModelCARE 2005 conference a short course will
be held from 1-3 June in Utrecht, the Netherlands.

Model Sensitivity Analysis, Data Assessment, Calibration, and
Uncertainty Evaluation Taught by Mary C. Hill and Howard Reeves of the
USGS and Frank Smits of Witteveen+Bos for more information please
visit:
     http://www.geo.uu.nl/hydrogeology/modsens/modsens.htm

Information on the ModelCARE 2005 conference is available at:
     http://modelcare2005.nitg.tno.nl/

We look forward to seeing you there!

Eileen Poeter, Director IGWMC: International Ground-Water Modeling Center
Dept. Geology and Geological Engineering, Colorado School of Mines
1500 Illinois St., Golden, CO 80401
(303)273-3829 fax (303)384-2037 or (303) 273-3859
epoeter@mines.edu   www.mines.edu/~epoeter/

From: "Connie Young" <cyoung@siam.org>
Subject: SIAM 2005 Annual Meeting
Date: Thu, 17 Mar 2005

Conference Name: 2005 SIAM Annual Meeting
Location: Hilton New Orleans Riverside Hotel, New Orleans, LA
Dates: July 11-15, 2005

The program schedule for the 2005 SIAM Annual Meeting is now available
at   http://www.siam.org/meetings/an05/.

On July 10, 2005, the SIAM Short Course on Computer Architecture for
Mathematicians and Numerical Analysts is scheduled to take place (at
the same location). Visit
    http://www.siam.org/meetings/an05/shortcourse.htm
for more information.

The Sixth SIAM Conference on Control and Its Applications is being held
jointly with the 2005 SIAM Annual meeting. Visit
   http://www.siam.org/meetings/ct05/ for more information.

Questions may be directed to the SIAM Conference Department at
meetings@siam.org .

From: Kirsten Wilden <wilden@siam.org>
Subject: SIAM Conference on Control and Its Applications
Date: Tue, 22 Mar 2005

Conference Name: SIAM Conference on Control and Its Applications
Location: Hilton New Orleans Riverside Hotel, New Orleans, LA
Dates: July 11-14, 2005

The program schedule for the SIAM Conference on Control and Its
Applications is now available at

<http://www.siam.org/meetings/an05/>http://www.siam.org/meetings/ct05/.

On July 10, 2005, the SIAM Short Course on Introduction to Financial
Mathematics and Related Optimization Problems and the SIAM Short Course
on Reduced-Order Model Development and Control Design are scheduled to
take place (at the same location). Visit
     http://www.siam.org/meetings/ct05/workshops.htm
for more information.

 The 2005 SIAM Annual meeting is being held jointly with the SIAM
Conference on Control and Its Applications. Visit
   <http://www.siam.org/meetings/ct05/>http://www.siam.org/meetings/an05/
for more information.

Questions may be directed to the SIAM Conference Department at
<mailto:siam@meetings.org>meetings@siam.org.

From: Kirsten Wilden <wilden@siam.org>
Subject: Extended Mathematics for Industry CFP Deadlines
Date: Wed, 23 Mar 2005

New Submission Deadlines!

Conference Name: SIAM Conference on Mathematics for Industry:
                    Challenges and Frontiers
Location: Detroit Marriott Renaissance Center, Detroit, Michigan

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Dates:              October 24-26, 2005

Invited Plenary Speakers:

Paul Deitz, Army Research Laboratories
Debra Elkins, General Motors
Steven Graves, Massachusetts Institute of Technology
Karl Kempf, Intel Corporation
Alan King, IBM T. J. Watson Research Center
Burton Smith, Cray Research

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/mi05/

                          **Deadlines**

**EXTENDED**
Minisymposium proposals:  April 25, 2005

Abstracts for all contributed and minisymposium presentations: April 25,
2005

For additional information, contact SIAM Conference Department at
meetings@siam.org.

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From: "Darrell Ross" <ross@siam.org>
Subject: SIAM Conference on Geometric Design & Computing
Date: Mon, 28 Feb 2005

Conference Name: SIAM Conference on Geometric Design & Computing
Location:        Hilton Phoenix East, Phoenix, Arizona
Dates:           October 30 - November 3, 2005

Reminder, the Call for Presentations deadlines for GD05 are fast
approaching!

Deadline Dates
Minisymposium proposals: April 1, 2005
Abstracts for all contributed and minisymposium presentations: May 2,
2005

For more information on how to participate goto:

    http://www.siam.org/meetings/gd05/participation.htm

Conference Webpage:

    http://www.siam.org/meetings/gd05/

For additional information, contact SIAM Conference Department at
meetings@siam.org

Darrell Ross
SIAM, Conference Program Manager
Conference Web Master
ross@siam.org

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From: Kirsten Wilden <wilden@siam.org>
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Subject: ACM-SIAM Symposium on Discrete Algorithms
Date: Thu, 17 Mar 2005

Subject: ACM-SIAM Symposium on Discrete Algorithms (SODA06)
Conference Name: ACM-SIAM Symposium on Discrete Algorithms (SODA06)
Conference Program Chair: Cliff Stein, Columbia University
Location: Radisson Hotel Miami, Miami, Florida
Dates: January 22-24, 2006

The Call for Presentations will be available in April 2005 at
www.siam.org/meetings/da06/

For additional information, contact SIAM Conference Department at
meetings@siam.org.

From: Indian Society for Development <isder_ceser@yahoo.com>
Subject: Call for Papers: International Journal of Tomography &
Statistics
Date: Fri, 11 Mar 2005

The International Journal of Tomography & Statistics (IJTS) welcomes
submissions of articles. The IJTS is to publish refereed, well-written
original research articles, and studies that describe the latest
research and developments in computerized Tomography and
Statistics. It also covers the many potential applications and
connections to other areas of Science and technology such as the use
of WAVELETS in signal and image processing & reconstructions, MRI,
PET, Telecommunication, Control, Modelling and Simulation, Seismology,
Bio-Medicine, Artificial Intelligence, Software Engineering,
Education, Databases & Knowledge Engineering, Internet and
Applications, Parallel and Distributed Computing and
inter-disciplinary nature of applications. Applications in signal and
image processing with Fourier analysis or WAVELETS are particularly
welcome.

IJTS is published by "Indian Society for Development & Environment
Research" ISDER. (http://www.geocities.com/ceser_isder).

Detailed instructions on how to prepare your manuscript are available
at "Instructions for Author".
(http://www.geocities.com/ceser_isder/ijts1.html)

Indian Society for Development & Environment Research, ISDER
Post Box No. 113,
Roorkee-247667, INDIA.

From: Liz Martin <liz.Martin@iop.org>
Subject: Contents, Inverse Problems, Volume 21, Issue 2, April 2005
Date: Thu, 17 Mar 2005

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A hybrid method for two-dimensional crack reconstruction
R Kress and P Serranho

All articles are free for 30 days after publication on the web. This
issue is available at: http://stacks.iop.org/0266-5611/21/i=3D2

We are pleased to announce that subscription to Inverse Problems in
2005 is exactly the same price as in 2004! For further information
contact us at custserv@iop.org.

From: Indian Society for Development <isder_ceser@yahoo.com>
Subject: Contents: International Journal of Tomography & Statistics
Date: Fri, 11 Mar 2005

Int'l Journal of Tomography & Statistics Dec 2004 Vol. 2 No. D04
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Detailed instructions on how to prepare your manuscript are available
at

    http://www.geocities.com/isder_ceser/instr4a.html

For More Information, mail to: Executive Editor (isder_ceser@yahoo.com)

    http://www.geocities.com/isder_ceser/ijts1.html

Indian Society for Development & Environment Research, ISDER
Post Box No. 113,
Roorkee-247667, INDIA.

From: "magrijn-secretary support" <magrijn.secsup@tip.nl>

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Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
        Travel grants: 5th Int'l Conf. Inverse Problems in Engineering
        Update: PDE-Based Image Processing & Related Inverse Problems
        4th International Conference on Aviation and Cosmonautics
        Summer Graduate School on Inverse Problems, U. Washington
        New Edition & Online Version of Book on Inverse Problems
        New book: Wave Scattering by Small Bodies of Arbitrary Shapes
        Faculty Position at the University of Muenster

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: "Keith A. Woodbury" <woodbury@me.ua.edu>
Subject: 5icipe travel grants for US participants
Date: Mon, 2 May 2005

May 2, 2005

I am pleased to announce that the National Science Foundation has
agreed to support travel for US participants to the 5th International
Conference on Inverse Problems in Engineering, to be held July 11-15,
2005 in Cambridge, UK. The funds will be administered through a grant
to The University of Alabama. Prospective recipients must apply by
submitting a mini-proposal as described in the RFP below. I apologize
for the tight timeline but the funds were only recently made available
from NSF. Please submit your requests as soon as possible but before
the *extended deadline* of May 9, 2005. Recipients will be notified
as soon as possible but before June 1, 2005.

Keith A. Woodbury
woodbury@me.ua.edu

Request for Proposals: Travel Grants for 5icipe

Synopsis
The American Group for Inverse Problems in Engineering (AGIPE)
anticipates approximately $25,000 from the National Science Foundation
to support travel for US engineers and mathematicians to the 5th
International Conference on Inverse Problems in Engineering (5ICIPE).
NSF funding originates from both Mathematical Sciences (DMS) and the
Engineering Directorate (CTS), so support for both mathematicians and
engineers is available. The grant from NSF has a secondary goal of
stimulating participation of emerging specialists in the field of
inverse problems, so requests from graduate students, post-doctoral
researchers, and junior faculty members are encouraged. Proposals
from members of historically underrepresented groups in math, sciences
and engineering are especially desired.

Background
AGIPE regularly sponsors the Inverse Problems in Engineering Symposium

(IPES) targeting a national (US) audience. Approximately every third year, an International Conference on Inverse Problems in Engineering (ICIPE) is held, and in these years the IPES is not held.

This year, the Fifth International Conference on Inverse Problems in Engineering (5ICIPE) will be held at Clare College, Cambridge, UK, July 11-15, 2005. This multidisciplinary conference will bring together researchers from around the world in different fields (math, science, and engineering) with a common interest in inverse methods.

The primary costs associated with 5ICIPE are the conference fee (which includes room and board) and round-trip airfare.

It is vital that the United States be significantly represented at this important international conference in order to gain knowledge of the current state of the science and bring this knowledge back to the US. As well, it is important that the thoughts under development in the US be afforded open discussion on the international stage so that our ideas can be disseminated.

To facilitate maximal US participation, NSF funds have been secured to help defray expenses of American participants. Funds from NSF originate in equal parts from divisions in Mathematics and Engineering and, if possible, mathematicians and engineers will be supported in like proportions. The grant from NSF has a supplemental goal of enabling participation of emerging specialists (e.g., graduate students, post-doctoral researchers, junior faculty members) so a portion of the funds will be committed to this purpose. Where possible, participation of historically underrepresented groups in math, sciences and engineering will be stimulated.

Request for Proposals
Short proposals for travel support to 5icipe are invited from US mathematicians and engineers. Proposals may request full or partial travel support, but requests for partial support are encouraged in order to support more participants. Proposals should include a short justification, a biographical sketch, and a summary of funds requested. Please indicate your participation in the conference (attendee or contributor) and, for partial travel support requests, indicate other sources of funding (e.g., research contract, company/university, personal funds, etc.). Proposals will be evaluated against the criteria outlined above by a committee of AGIPE members. Please send your proposal (electronic .pdf or .doc preferred) as soon as possible but before May 6, 2005 May 9, 2005 to

5ICIPE Travel
c/o Mechanical Engineering
The University of Alabama
Tuscaloosa, AL   35487

5icipe@me.ua.edu

Notification of awards will be made as soon as possible but before June 1, 2005.

From: Ola Marius Lysaker <mariul@simula.no>
Subject: PDE-Based Image Processing and Related
Date: Tue, 05 Apr 2005

UPDATE: An international conference on "PDE-Based Image Processing
and Related Inverse Problems", will take place August 8-12, 2005 in
Oslo, Norway.
http://www.cma.uio.no/conferences/2005/imageprocessing_workshop.html

The purpose of this conference is to have international experts to come
to
Oslo and exchange new ideas and results in this field. The conference
will
focus on, but will not be limited to the following topics for image
analysis
and processing:

 * Noise analysis and removal
 * Image inpainting
 * Image segmentation
 * 3D image analysis including shading, motion, shape and edge detection
 * Analysis and processing of MR images and brain mapping
 * Diffusion-tensor image analysis
 * Simulation and image techniques for ECG and other medical techniques
 * Image processing and data mining for Internet communication and
   information technology.

Inverse problems for partial differential equations have large areas
of applications. One widely studied application is for oil reservoir
simulations. Although image analysis and PDE inverse problems seem to
be unrelated at a first glance, there are many techniques used in one
of these two areas that are useful for the other. For example, many of
the regularization techniques and segmentation ideas used for image
processing have found interesting applications in inverse problems
within oil reservoir modeling. We shall use this conference to
highlight some of the recent efforts in merging different techniques
for these two research areas.

Invited speakers:

* Raymond Chan, Chinese University of Hong Kong
* Tony F. Chan, University of California at Los Angeles
* Antonin Chambolle, Ecole Polytechnique
* Stanley Osher, University of California at Los Angeles
* Guillermo Sapiro, University of Minnesota
* Otmar Schezer, University of Innsbruck
* Joachim Weickert, Saarland University

* Qianshun Chang, Chinese Academy of Sciences
* Ke Chen, University of Liverpool
* Sung Ha Kang, University of Kentucky
* Stacey Levine, Duquesne University
* Wolfgang Ring, University of Graz
* Robert Ryan,
* Richard Tsai, Princeton University
* Hao-Min Zhou, Georgia Institute of Technology

Registration:

No fee will be charged for participating in the conference. However,
registration is needed to plan the scale for the conference. The total
number of participants will be limited.

Please use our electronic registration page,
http://www.cma.uio.no/conferences/2005/imageprocessing_registration.html

----
From: "Karp K.A." <aviacosmos_2005@mai.ru>
Subject: Aviation & Cosmonautics 2005 - First Announcement
Date: Tue, 26 Apr 2005

4th International Conference
Aviation and Cosmonautics-2005
October 10 -11, 2005
Moscow

First announcement and call for papers

SCOPE
Moscow Aviation Institute in cooperation with Federal Space Agency and
Russian Academy of Cosmonautics by K.E.Tchiolkovsky organized 3rd
International Conference "Aviation and Cosmonautics-2004" in
November, 2004.   More then 100 enterprises, companies and
universities from different countries participated in this conference.

Conference "Aviation and Cosmonautics" will give some new possibility
in collaboration between Russian and foreign aerospace enterprises,
companies, universities in technology transfer in a area of ground and
onboard control systems, navigation, life support systems, etc.

TOPICS OF THE CONFERENCE
Aerodynamics - Yu.A.Ryjov, O.V.Yakovlevsky
Aerospace education - I.A.Prohorov, V.I.Stepanenko
Analysis and synthesis of complex systems - V.M.Matrosov, A.A.Lebedev,
I.V.Garanin
Applied and mathematical methods - P.S.Krasilnikov, U.G.Pirumov,
A.L.Skubachevsky
Aviation security and flight security - V.D.Kofman, A.A.Krasotkin,
I.K.Mulkidjanov, R.A.Teimurazov
Ballistics, dynamics and control - V.A.Yaroshevsky, A.V.Efremov,
V.V.Salmin, V.T.Grumondz
Computer and informatics technologies on transport - O.M.Brehov,
V.G.Osipov, A.V.Sharonov, V.I.Lopatin
Control system and navigation - B.S.Aleshin, G.N.Lebedev,
A.V.Repnikov, M.N.Krasilshikov, L.N.Lysenko, N.M.Ivanov
Cosmonautics and society - V.M.Matrosov, V.P.Senkevich
Design, technology and production - V.N.Gushin, M.Yu.Kuprikov,
V.S.Syromytnikov
Ecology - V.A.Afanas'ev, M.I.Dainov, A.B.Alatyrcev, Yu.V.Chudetcky
Economy, commercialization and marceting - E.S.Minaev, O.F.Demchenko,
S.S.Korunov, N.B.Bodin
Electrical rocket engines - G.A.Popov, I.P.Nazarenko
Electro-energy, electro-mechanic, bio-technical systems - L.K.Kovalev,
V.A.Postnikov
Helicopters design - Yu.M.Ignatkin, M.N.Tishenko, S.V.Miheev
Heating engines - V.V.Chervakov, Yu.A.Ravikovich, A.B.Agul'nik,
A.A.Kozlov
History of development and cooperation in aviation and cosmonautics -
V.S.Porohny
Humanitarian, philosophy and historical problems -S.I.Mavrodi
Information technologies of radio-electronic device -S.A.Kleimenov,
I.Ya.Immoreev
Life support systems - V.V.Malozemov, B.I.Kruchkov

Materials sience - S.V.Buharov, A.A.Donskoy, G.P.Fetisov
Motion dynamics of rigid and flexible body - A.G.Gorshkov,
F.N.Shklyrchuk, A.A.Zotov
Multy - environment vehicles and systems - E.S.Shahidjanov, E.V.Tarasov
Onboard radio-electronic complexes - A.I.Kanashenkov, B.G.Tatarsky
Open education - K.A.Karp, T.B.Volkova, S.A.Piyavsky, V.I.Lopatin,
N.V.Nikitin
Quality control - B.V.Boicov, A.V.Trofimov
Rockets and space vehicles - O.M.Alifanov, V.K.Bezverby, Yu.A.Matveev,
V.Yu.Bronfman
Robotics - G.A.Sokolovsky, V.A.Polkovnikov
Space transportation systems - A.G.Milovanov, V.P.Plohih
Students and schoolboys section - Yu.Yu.Komarov, M.Yu.Kuprikov,
S.A.Tuzikov, V.S.Hohulin
Thermal options, heat shield, thermoregulation - O.M.Alifanov,
A.V.Nenarokomov
University's nano- and pico-satellites - V.M.Matrosov, G.V.Malyshev,
O.M.Brehov
Unmanned flight vehicle - I.K.Turkin

WORKING LANGUAGES
Russian and English will be the working languages of the conference
and exhibition (without synchronic translation).

CALL FOR PAPER
Papers will be selected on the base of abstracts of 300-500 words
and may be submitted only by e-mail attachment. Papers should be
prepared using Word editor, font 14, Times New Roman, printed through
one space without equations and figures. Abstracts should contain the
following information: title of paper, author(s) name(s), and
affiliation of author(s). Abstracts should be sent before September
1, 2005 to Organizing Committee as well as registration form and
registration fee. The faxes are not considered.

NOTIFICATION ABOUT ACCEPTATION
Authors will be notified of the decision of the Program Committee
simultaneously with the second announcement by October 1, 2005 by
e-mail.

PRESENTATION
The paper presentation will be limited to 15 minutes. Computer and
overhead projector will be available.

ABSTRACT
The final program and the abstracts of the papers will be given to
participants upon registration.

REGISTRATION
Participants are requested to visit registration desk on Monday,
October 10, 2005, from 9.00 to 12.00.

VISA SUPPORT
The following information is required for visa support:
Family Name, First name, Sex
Affiliation
Company/Institute, Address, Country
Date of birth, Place of birth
Passport number, Date of issue, Date of expiry
Copy of passport
Phone, Fax, E-mail

Please send this information as soon as possible to Organizing Committee.

HOTEL RESERVATION
Requests for hotel reservations should be described in the second announcement.

REGISTRATION FEE
The fee for the participation in the Conference is 300 euro before March 15, 2005 (50 euro for students), 350 euro before June 15, 2005 (75 euro for students), and 400 euro before September 1, 2005 (100 euro for students). This fee includes access to all sessions, abstract book and welcome reception. A bank transfer should pay the registration fee.
It is possible to refuse 50 % of registration fee till September 1, 2005, no refused after September 1, 2005.

CONFERENCE ORGANIZING COMMITTEE ADDRESS
Prof. Konstantin A. Karp, Head of the Open Education Center, Moscow Aviation Institute (State Technical University) "MAI", 4, Volokolamskoye shosse, GSP-3, A-80, Moscow, 125993, RUSSIA

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aviacosmos_2005@mai.ru;   aviacosmos_2005@mail.ru;
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FAX +7-095-158-29-77

WWW.MAI.RU

REGISTRATION FORM
Family Name:
First Name:
Affiliation:
Company/University:
Country:
Address:
Phone:
Fax:
E-mail:
I'd like to receive the following information:
I'd like to attend conference:
I'd like to receive the invoice:
Name of topic:
Name of paper:

[Note: Members of the Program Committee, Scientific Committee, and Presidium of Organizing Committee have been omitted from this news item for reasons of space. Please see the Appendix to this Digest (Vol. 12, No. 5) at   http://www.mth.msu.edu/ipnet   -- Ed]

From: Gunther Uhlmann <gunther@math.washington.edu>
Subject: Graduate Summer School at the University of Washington
Date: Thu, 21 Apr 2005

Summer Graduate School on Inverse Problems at the University of Washington

During August 1-5, 2005, the PIMS Collaborative Research Group on Inverse

Problems is organizing a graduate summer school on inverse problems. The summer school is intended for graduate students, postdoctoral fellows and scientists interested in learning the subject. Guillaume Bal (Columbia), Gary Margrave (Calgary), Joyce McLaughlin (RPI), Plamen Stefanov (Purdue),
William Symes (Rice) and Gunther Uhlmann (UW) will give minicourses covering a broad range of inverse problems.

Please go the web page: http://www.pims.math.ca/science/2005/05inverse/ for
more information and/or contact Gunther Uhlmann (gunther@math.washington.edu).

Gunther Uhlmann

From: Albert Tarantola <tarantola@ccr.jussieu.fr>
Cc: Albert Tarantola <tarantola@ccr.jussieu.fr>
Subject: Book on Inverse Problems
Date: Fri, 8 Apr 2005

Dear colleague,

This is to let you know that the second edition of my book on Inverse Problems has been published by the Society of Industrial and Applied Mathematics (SIAM), under a slightly different title (Inverse Problem Theory and Methods for Model Parameter Estimation).

But the great news is that SIAM has allowed me to distribute the full PDF version of the book, totally free. The document is available from my web page, http://www.ccr.jussieu.fr/tarantola/

Best regards.

Albert

Albert Tarantola, Professor,
Institut de Physique du Globe de Paris,
http://www.ccr.jussieu.fr/tarantola/

From: "Prof. Alexander G.Ramm" <ramm@math.ksu.edu>
Subject: New book: Wave Scattering by Small Bodies of Arbitrary Shapes
Date: Sun, 3 Apr 2005

WAVE SCATTERING BY SMALL BODIES OF ARBITRARY SHAPES
by Alexander G Ramm (Kansas State University, USA)

This book presents analytical formulas which allow one to calculate the S-matrix for the acoustic and electromagnetic wave scattering by small bodies or arbitrary shapes with arbitrary accuracy. Equations for the self-consistent field in media consisting of many small bodies are derived. Applications of these results to ultrasound mammography and electrical engineering are considered.

The above formulas are not available in the works of other authors. Their derivation is based on a mathematical theory for solving integral equations of electrostatics, magnetostatics, and other static fields. These equations are at a simple characteristic value. Convergent iterative processes are constructed for stable

solution of these equations. The theory completes the classical work
of Rayleigh on scattering by small bodies by providing analytical
formulas for polarizability tensors for bodies of arbitrary shapes.

Contents: Basic Problems; Iterative Processes for Solving Fredholm's
Integral Equations for Static Problems; Calculating Electric
Capacitance; Numerical Examples; Calculating Polarizability Tensors;
Iterative Methods: Mathematical Results; Wave Scattering by Small
Bodies; Fredholm Alternative and a Characterization of Fredholm
Operators; Boundary-Value Problems in Rough Domains; Low Frequency
Asymptotics; Finding Small Inhomogeneities from Scattering Data;
Modified Rayleigh Conjecture and Applications; Appendix A: Optimal
with Respect to Accuracy Algorithms for Calculation of
Multidimensional Weakly Singular Integrals and Applications to
Calculation of Capacitances of Conductors of Arbitrary Shapes.

Readership: Researchers, academics and lecturers in mathematics,
physics, electrical engineering, geophysics, oceanography and
environment sciences.

Key Features
 Contains potentially useful results in medical engineering,
ultrasound mammography, electrical engineering, etc.
 Applications are given to inverse radiation problem and other inverse
scattering problems
 Modified Rayleigh Conjecture is proved and applied for developing of
efficient numerical methods for solving obstacle scattering problems
 Optimal methods for calculating multiple integrals of weakly singular
functions are given

300pp (approx.)   Pub. date: Scheduled Summer 2005
981-256-186-2   US$56   BP34

Book Code: MkPkzMcPcEe-BM5765
Main Subject Classification: Mathematical Physics, Electrodynamics,
Computational Physics, Numerical & Computational Mathematics,
Condensed Matter Physics and Electrical & Electronic Engineering

Keywords: Wave Scattering; Small Bodies; Integral Equations;
Capacitance; Polarizability Tensors; S-Matrix

Monograph B+ 12/11/2004
In-house Editor: Zhang Ji
Acquisitions Editor: Dr Phua
Sook Cheng/sj
Updated contents & readership on 15/02/2005
Updated contents on 16/02/2005

Website: Mathematical Physics, Electrodynamics, Computational Physics
and Electrical & Electronic Engineering

New Titles for Website: Physics and Engineering

From: Frank_Wuebbeling <wuebbel@math.uni-muenster.de>
Subject: Faculty Position at the University of Muenster
Date: Mon, 4 Apr 2005

The University of Muenster, Germany, invites applications for a tenure
faculty position (W3) in Applied Mathematics, following the retirement

of Frank Natterer in summer of 2006. Applicants should specialize
for example in differential equations, inverse problems, or scientific
computing. All information is available on the Website of the
university at
    http://www.uni-muenster.de/Rektorat/Stellen/St_1351.htm
(this is in German, I confess, but since the applicants should be
speaking German anyway, I think this is no restriction :-)).

Frank Wuebbeling (wuebbel@math.uni-muenster.de)
Dept. of Mathematics and Computer Science
University of Muenster
Germany.
------- end -------

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
     Workshop on Inverse Problems and Control
     ACM-SIAM Symposium on Discrete Algorithms
     RICAM Linz, Austria, Special Semester on Groebner Bases
     Doctoral Student Position in Inverse Problems in Magnetostatics
     English Publication of Spline Approximation Method Book
     Table of Contents: Inverse Problems
     Table of Contents: Inverse Problems in Science and Engineering
     Table of Contents: Nonlinear Analysis: Modelling and Control

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: "patricia gaitan" <Patricia.Gaitan@cmi.univ-mrs.fr>
Subject: Workshop on Inverse Problems and Control
Date: Tue, 10 May 2005

A workshop on inverse problems and control will take place
November 30 - December 2, 2005
in Marseille, France.

http://www.latp.univ-mrs.fr/colloque/WIP2005/

The purpose of this conference is to exchange new ideas and results in
these fields:

Inverse Boundary Problems, Inverse Scattering Problems, Inverse
Problems and Control.

Invited speakers:

*Matania Ben-Artzi (Hebrew Univ. of Jerusalem)
*Lahc=E8ne Chorfi (Univ. Annaba, Algerie)
*Enrique Fernandez Cara (Univ. Sevilla, Spain)
*Jean-Claude Guillot (Univ. Paris 13, France)
*Tuong Ha-Duong (Univ. Compiegne, France)
*Viorel Iftimie((Univ. Bucarest, Roumanie)
*Hiroshi Isozaki (Univ. Tsukuba, Japan)
*Patrick Joly (INRIA Rocquencourt, France)
*Juliette Leblond (INRIA Sophia Antipolis, France)
*Peppino Terpolilli (Total, Pau, France)

Registration:

No fee will be charged for participating in the conference. However,
registration is needed to plan the scale for the conference. The total
number of participants will be limited.

Please use our electronic registration page,

http://www.latp.univ-mrs.fr/colloque/WIP2005/

Patricia GAITAN
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Universite de Provence
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Centre de Mathematiques et d'Informatique
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tel : (33) 04 91 11 36 48   fax : (33) 04 91 11 35 52
tel : (33) 04 42 93 90 33   fax : (33) 04 42 93 90 74=0D

From: "Kirsten Wilden" <Wilden@siam.org>
Subject: ACM-SIAM Symposium on Discrete Algorithms (SODA)
Date: Mon, 9 May 2005

Conference Name: ACM-SIAM Symposium on Discrete Algorithms (SODA)

Location: Radisson Hotel Miami, Miami, Florida

Dates: January 22-24, 2006=20

The Call for Presentations for this symposium is available at:
http://www.siam.org/meetings/DA06/index.htm

Submission Deadline: July 6, 2005

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

From: "Prof. Heinz W. Engl" <heinz.engl@jku.at>
Subject: RICAM Linz, Austria, Special Semester on Groebner Bases
Date: Mon, 30 May 2005

RICAM Linz, Austria, Special Semester on Groebner Bases

Call for Participation

The Radon Institute for Computational and Applied Mathematics (RICAM),
in close cooperation with the Research Institute for Symbolic
Computation (RISC), is organizing a

  Special Semester on Groebner Bases and Related Method
            February - July 2006, see

      http://www.ricam.oeaw.ac.at/srs/groeb/index.htm

in the frame of the Radon Institute for Computational and Applied
Mathematics (RICAM) in close cooperation with RISC.

This event will bring together key researchers in this area with
postdocs and docs for intensive joint research. Also, tutorials will
be offered. If you are interested in taking part, go to the web site
and fill out the expression of interest. Some limited funds for
supporting participation are available.

If you have any questions, please, write directly to me.

Bruno Buchberger
Director of the Special Semester

Research Institute for Symbolic Computation
Johannes Kepler University, A 4232 Castle of Hagenberg, Austria
Phone office: ++ 43 732 2468 9921
Mobile phone: ++ 43 664 4211646
Fax: ++ 43 732 2468 9930
E-mail: bruno.buchberger@jku.at
home page: www.risc.uni-linz.ac.at/people/buchberger

Submitted by: Prof.Dr.Heinz W. Engl   E-Mail: heinz.engl@jku.at

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From: Marek Behr <behr@cats.rwth-aachen.de>
Subject: Doctoral student position in Germany
Date: Mon, 16 May 2005

The Chair for Computational Analysis of Technical Systems at the RWTH
Aachen University seeks a full-time doctoral student / scientific
co-worker (BAT IIa pay scale, 3 year appointment, renewable for another
3 years if funding allows). The position will support the Research
Center SFB 540 "Model-based Experimental Analysis of Kinetic Phenomena
in Fluid Multi-phase Reactive Systems" project TP A9 "Accurate
Quantification of Concentration Measurements by NMR".

The candidate is expected to conduct a research program leading to a
doctoral thesis in the area of inverse problems in magnetostatics. The
primary tasks will be:

* adaptation of the CATS partial differential equations solver XNS for
electromagnetics applications,

* adaptation of an optimization version of the solver XNS-SOPT for
inverse problems,

* evaluating available gradient-based optimization drivers and
interfacing them with XNS,

* performing numerical simulations to improve accuracy of Magnetic
Resonance Imaging concentration measurement experiments,

* see http://www.cats.rwth-aachen.de:8080/pdf/sfb540-tpa9-poster.pdf
for more details.

Ideal candidate will have:

* a completed degree (Diplom or M.S.) in Mathematics, Engineering or
Physics,

* experience with inverse design, optimal control or shape optimization,

* experience in finite element modeling and parallel computing,

* familiarity with UNIX operating system and Fortran or C programming,
and

* an ability to communicate well in both German and English.

This project will be conducted in close collaboration with the Chair
for Macromolecular Chemistry at the RWTH Aachen. Applications are being
reviewed now. The position is expected to be filled in July 2005.

For a PDF version of this ad, see
http://www.cats.rwth-aachen.de:8080/pdf/sfb540-tpa9-ad.pdf

Contact information:

Prof. Marek Behr, Ph.D.
Chair for Computational Analysis of Technical Systems (CATS)
Center for Computational Engineering Science (CCES)
RWTH Aachen University, 52056 Aachen, Germany
+49 (0)241 80 28430 -fax- +49 (0)241 80 22430
behr@cats.rwth-aachen.de http://www.cats.rwth-aachen.de

From: agrebe@fcfm.buap.mx
Subject: English publication of Spline Approximation Method Book
Date: Tue, 3 May 2005

Dear colleagues!

This is to let you know that of my book on inverse problems
 has been published in English.

Grebennikov A. I.
Spline Approximation Method and Its Applications. MAX Press, 2004. 100
p.
ISBN 5-317-01051-9

Abstract

Spline Approximation method for solution of a wide class of ill-posed
problems is proposed. The method consists in combination of
spline-collocation and special regularization with Recursive
Smoothing. The general scheme for the operator equation of the first
kind is proposed and justified theoretically. Concretizations for the
problem of data processing and solution of integral equations of the
first kind with singularity in the kernel are considered. The
numerical algorithms and computer software are constructed for,
solution of different applied incorrect problems. Advantages of
developed method are demonstrated on the model numerical
experiments. Presented results were used by author in postgraduate
courses of lectures at the Faculty of Calculation Mathematics and
Cybernetics of the Lomonosov Moscow State University, Russia, and at
the Faculty of Physics and Mathematics Sciences of the Autonomous
University of Puebla, Mexico. The work was realized in the frame of
the International Program of Cooperation Mexico-Russia in Education
and Science.

It is possible to obtain full PS version of the book, totally free.
The document can be send to you if you will present me your e-mail
address. My e-mail for contacts:
agrebe50@yahoo.com.mx

From: Liz Martin <liz.Martin@iop.org>
Subject: Inverse Problems, volume 21, issue 3, June 2005
Date: Mon, 16 May 2005

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PAPERS

A mixed formulation of quasi-reversibility to solve the Cauchy problem
for Laplace's equation   L Bourgeois

Cone-beam reconstruction using 1D filtering along the projection of
M-lines   J D Pack and F Noo

Identification of a point source in a linear
advection--dispersion--reaction equation: application to a pollution
source problem   A El Badia, T Ha-Duong and A Hamdi

A method for inverse scattering based on the generalized Bremmer
coupling series   A E Malcolm and M V de Hoop

Image reconstruction in regions of interest from truncated Radon
transforms of even dimensions   X Pan and Y Zou

FBP algorithms for attenuated fan-beam projections
J You, G L Zeng and Z Liang

CORRIGENDUM

Uniqueness in an inverse scattering problem within non-trapping
polygonal obstacles with at most two incoming waves
J Cheng and M Yamamoto

All articles are free for 30 days after publication on the web. This
issue
is available at: http://stacks.iop.org/0266-5611/21/i=3

From: "jamesverebeck" <jamesverebeck@comcast.net>
Subject: Inverse Problems in Science and Engineering
Date: Sat, 7 May 2005

Inverse Problems in Science and Engineering June 2005   Vol. 13 No. 3
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On stable iterative methods of gradient type for the inverse medium
scattering problem   A. B. Bakushinsky, M. Yu. Kokurin and A. I. Kozlov

Inversion of spectroscopic data, application on CO2 radiation of flame
combustion   P. Al Khoury, G. Chavent, F. Clement and P. Herve

Near real-time atmospheric contamination source identification by an
optimization-based inverse method   A. C. Bagtzoglou and S. A. Baun

Aerodynamic data modeling using support vector machines
H.-Y. Fan, G. S. Dulikravich and Z.-X. Han

A three-step algorithm for solving 2D inverse magnetostatic problems
for magnetron design applications   T. Moiseev and D. C. Cameron

Constrained optimization of aerodynamic shapes via minimization of
total drag   S. Peigin and B. Epstein

Submitted by: Jim Beck
e-mail: jamesverebeck@comcast.net, beck@egr.msu.edu, jvb@beckeng.com

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Nonlinear Analysis: Modelling and Control   2005   Vol. 10, No. 2
                  Table of Contents

A free on-line edition is available at:
http://www.lana.lt/journal/issues.php

Nonlinear Analysis: Modelling and Control, an official journal of
the Lithuanian Association of Nonlinear Analysts (LANA),
welcomes contributions from the international community.

For a paper submission, please refer to
http://www.lana.lt/journal

Dr. Romas Baronas, Journal Secretary,
Nonlinear Analysis: Modelling and Control,
e-mail: romas.baronas@maf.vu.lt
------- end -------

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: Thorsten Hohage <hohage@math.uni-goettingen.de>
Subject: Workshop on Statistical Inverse Problems
Date: Wed, 06 Jul 2005

First announcement:
The Graduiertenkolleg 1023 "Identification in mathematical models:
Synergy of stochastic and numerical methods" at the University of
Goettingen announces a

WORKSHOP ON STATISTICAL INVERSE PROBLEMS

University of Goettingen, Germany
March 23-25, 2006

Organizing Committee:
Frank Bauer, Nicolai Bissantz, Thorsten Hohage, Axel Munk

Aims and Scope

Inverse Problems is an area of growing interest both for statisticians
and numerical analysts since such problems arise naturally in many
applications e.g. in in medical imaging, economy, finance, physics,
chemistry, biology and industrial research. So far a large part of the
research on inverse problems in statistics and numerics has followed
different paths. Whereas a lot of progress has been achieved on
nonlinear deterministic inverse problems over the last decade, the
literature on nonlinear statistical inverse problems is scarce. In
contrast, a variety of sophisticated adaptive techniques for parameter
and model selection have been developed in statistics, which do not
have a counterpart in deterministic theory. Many questions of
fundamental theoretical and practical importance arise in both fields:
identifiability, consistency, computation of estimators, and
optimality in various forms. Therefore, this workshop intends to
establish and strengthen links between research in the statistical and
the deterministic inverse problems communities.

The workshop will cover the following topics:

Methods and Techniques:
 * Algorithmic Aspects of Inverse Problems
 * Bayesian Approaches
 * Minimax Theory
 * Convergence Analysis
 * Iterative Methods for Non-Linear Inverse Problems
Fields of Application:
 * Econometrics
 * Image Reconstruction
 * Deconvolution
 * Medical Applications
 * Technical/Physical/Industrial Applications

Invited Speakers:

F. Balabdaoui, University of Goettingen, Institute for Mathematical Stochastics
F. Bauer, University of Goettingen, Institute of Numerical and Applied Mathematics
M. Bertero, Universtiy of Genova, Department of Computer Science
N. Bissantz, University of Goettingen, Institute for Mathematical Stochastics
L. Cavalier, Universite de Provence, Aix-Marseille I, Department of Mathematics
J. Florens University of Toulouse I, Department of Economics
N. Hengartner, Los Alamos National Laboraties, D-1 Statistical Science Group
J. Horowitz, Northwestern University, Department of Economics
G. Jongbloed, University of Amsterdam, Faculty of Sciences
J. Kaipio, University of Kuopio, Department of Applied Physics
P. Kim, University of Guelph, Department for Mathematics and Statistics
J. Loubes University Paris Sud, Department of Mathematics
B. Mair, University of Florida, Department of Mathematics
E. Mammen, University of Mannheim, Department of Economics
S. Pereverzev, Johann Radon Institute for Computational and Applied Mathematics (RICAM), Linz
M. Reiss, Weierstrass Institute, Berlin
F. Ruymgaart, Texas Tech University, Department of Mathematics and Statistics
E. Somersalo Helsinki, University of Technology, Department of Mathematics
P. Stark, University of California, Department of Statistics

Schedule and Location:

The workshop will take place at the University of Goettingen in March 2006 from Thursday 23/03/2006 to Saturday 25/03/2006.

Registration:

There will be no conference fee.

Please register for the conference until 01/11/2005 using the following email-address: gk1023@math.uni-goettingen.de

We intend to provide ample opportunity for discussions. Therefore the official program will be limited to invited talks.

However, there will be a possibilty to present a poster in a special poster session. If you intend to do so please indicate this in your registration and provide a title and an abstract until 01/11/2005.

Arrival and Accomodation:

For further information on the workshop, Goettingen, arrival information and accomodation we want to refer you to

http://www.num.math.uni-goettingen.de/gk/conference/conferences.php?LANG=EN

For further requests contact:
Heike Ahrens
Institut für Numerische und Angewandte
Mathematik,Georg-August-Universitaet Goettingen
Lotzestr. 16-18
37083 Goettingen
++49-(0)551/39-4523

gk1023@math.uni-goettingen.de

From: "Katie Banham" <kbanham@wessex.ac.uk>
Subject: Heat Transfer 2006: Call for Papers
Date: Thu, 23 Jun 2005

Call for Papers:
Heat Transfer 2006
5 - 7 July 2006, The New Forest, UK

Organised by:
Wessex Institute of Technology, UK
Lund University of Technology, Sweden

Sponsored by: Development in Heat Transfer Book Series

Dear Colleague:

On behalf of the International Scientific Advisory Committee (ISAC), we are pleased to inform you of the Ninth International Conference on Advanced Computational Methods and Experimental Measurements in Heat and Mass Transfer. The meeting will take place from 5 - 7 July 2006 at Ashurst Lodge, the home of the Wessex Institute of Technology, located in the beautiful New Forest (UK).

Conference papers will be reviewed by members of the ISAC and other colleagues, and if selected, will be published in hard book form by WIT Press and will be available to delegates at the time of registration. In addition, the proceedings will be widely distributed after the conference through the international book trade and by direct announcement to readers and librarians. All papers will be permanently archived in the Transactions of the Wessex Institute on our eLibrary site, which is available to the

Click on the web address below to access the conference website, which has full details about the conference objectives, topics and submission requirements:

http://www.wessex.ac.uk/conferences/2006/heat2006/cfp.html

If you are not the right point of contact for this material we apologise, and would appreciate you forwarding this to the correct person or providing us with the contact details.

Best regards,

B Sunden, Lund University of Technology, Sweden
C A Brebbia, Wessex Institute of Technology, UK
Conference Chairmen

[This item has been edited for reasons of length. -Ed.]

From: "nick cobb" <nickk@cris.com>
Subject: Imaging Physicist Position, working in Inverse Problems
Date: Fri, 24 Jun 2005

Imaging Diagnostic company in Northern NJ seeking a:

Title: Imaging Physicist
Reports to: Director of Engineering
Direct Reports: None

Responsibilities:
- Support and lead research and development tasks with a particular focus on analyzing and developing linear and non-linear algorithms for data and image processing in an ISO 13485 environment with strict adherence to quality system requirements.
- Prototype software designs in MATLAB, support transition to real-time C-code.
- Perform modeling and analysis of physical phenomena and engineering data to develop system concepts and support technology investigations.
- Develop quantitative tools for assessment and improvement of image quality.
- Prepare software and algorithm documentation as needed.
- Perform algorithm design, development, documentation, verification and validation activities in compliance with all requirements set forth by the FDA's Quality System Regulation and the company's ISO 9001:2000/ISO 13485 certified quality system.
- Assist in preparing oral and written reports.

Measures of Success:
- Develop innovative image processing solutions and improvements.
- Complete algorithm design, development, and verification activities on time.

Position Qualifications and Requirements:
- Masters or PhD in Physics, Mathematics, or related quantitative discipline.
- Minimum 3 years of relevant industry experience.
- Hands-on experience in algorithm design, development, and implementation.
- Hands-on knowledge of medical diagnostic image processing algorithms and statistical methods, including SVD, PCA, ICA.
- Strong analytical and linear algebra skills.
- Direct experience with tomographic and inverse problem image reconstruction processing a plus.

- Direct experience with pattern classification techniques, splines, and image processing using wavelets a plus.
- Ability to understand and articulate complex technical concepts and ideas.
- Strong computer, interpersonal, communications and teamwork skills.
- Solid programming skills in MATLAB.
- Excellent verbal and written communication skills.
- Industry experience should include operating under the guidelines set forth by the FDA Quality System Regulation and/or ISO 9001 or equivalent.
- Competent with Microsoft Word, Excel, Project, and Access.
- Ability to handle multiple projects.
- Enthusiastic and forward-thinking attitude to get the job done.
- Self-starter.

Position Summary: A hands-on team player who analyzes, develops, and tests image and data processing algorithms for use in innovative medical imaging products with emphasis on quality.

Send resume as a "Word" attachment to:

                    "Pro-Active in Executive Search"
                     Nick Cobb
                     Executive Search Consultant
                     nickk@cris.com tel: 203-322-9680

From: Xue-Cheng Tai <xue-cheng.tai@uib.no>
Subject: Postdoctoral Position in Image Processing
Date: Sun, 03 Jul 2005

Postdoctoral Position in Applied Mathematics at the University of Bergen, Norway.

A postdoctoral position with a duration of two years is open at the Department of Mathematics, starting from October 01, 2005 in the project: Graphics cards as a high end computational resource (http://www.sintef.no/gpgpu). The project is a Strategic Research Program funded by the Research Council of Norway, it is coordinated by Department of Applied Mathematics in SINTEF ICT, and the University of Bergen is one of the University partners.

The focus of the project is to develop and analyze mathematical and numerical methods for image processing using partial differential techniques. The work will be done in cooperation with scientists from SINTEF Oslo.

Applicants must have achieved a Norwegian doctorate or an equivalent degree from abroad, or have presented the dissertation for assessment by the closing date for applications. It is a prerequisite that the dissertation has been approved before appointment is granted.

Applicants must have demonstrated abilities in conducting independent research and publishing research results in journals of international level. Successful candidate will work in an international environment. Thus, ability to communicate and collaborate is important.

Further details about the position can be obtained from professor Xue-Cheng Tai (http://www.mi.uib.no/~tai), by phone (+47) 55584868 or e-mail: Xue-Cheng.Tai@mi.uib.no.

Applications must be submitted in 3 copies, sorted into 3 identical
bundles, each with a complete overview over education and previous
practice (CV), certified copies of certificates and diplomas, project
plan outline, and scientific publications with a list of these (list
of publications), and should be forwarded to the University of Bergen,
Department of Mathematics, Johannes Brunsgate 12, N-5008 Bergen,
Norway, by August 10, 2005.

From: "Birsen Yazici" <yazici@ecse.rpi.edu>
Subject: Post-doctoral Positions with Interest in Inverse Problems
Date: Fri, 24 Jun 2005

Two Post-doctoral Research Associate Positions at Rensselaer
Polytechnic Institute:

As part of a DoD funded project in radar imaging and waveform design,
Rensselaer Polytechnic Institute is seeking applications for "two"
post-doctoral research associate positions at the Electrical, Computer
and Systems Engineering Department and Mathematics Department.

Position 1:
Qualifications: Ph.D. Degree in in mathematics, theoretical phyics,
electrical and computer engineering, computer science or related
disciplines. Expertise in harmonic analysis, knowledge in group
representation theory is desirable, interest in inverse problems and
radar applications, good computing/programming and communication
skills. Position is for 2 years. Start date August-September 2005
(flexible). Interested applicants please send your resume and
references to Dr. Birsen Yazici at yazici@ecse.rpi.edu.

Position 2:
Qualifications: Ph.D. Degree in in mathematics, theoretical phyics,
electrical and computer engineering, computer science or related
disciplines. Expertise in microlocal analysis, knowledge in statistics
is desirable but not necessary, interest in inverse problems and radar
applications, good computing/programming and communication
skills. Position is for 15 months (potentially renewable). Start date
August-September 2005 (flexible). Interested applicants please send
your resume and references to Dr. Birsen Yazici at yazici@ecse.rpi.edu
or Dr. Margaret Cheney at cheney@rpi.edu.

RPI has a well-recognized leadership role in the area of inverse
problems and it offers exceptional work enviroment and competetive
salaries.

Birsen Yazici
Assistant Professor
Electrical, Computer and Systems Engineering
Rensselaer Polytechnic Institute
Jonsson Engineering Center
110 8th Street JEC 7008
Troy, NY 12180
Tel: (518) 276 - 2905
Fax: (518) 276 - 6261
e-mail: yazici@ecse.rpi.edu

From: jamesverebeck@comcast.net

Subject: Contents: Inverse Problems in Science and Engineering
Date: Thu, 30 Jun 2005

Inverse Problems in Science and Engineering   August 2005 Vol. 13 No. 4
                  Table of Contents

From: "Dr. Srivastava" <tanujfma@yahoo.com>
Subject: Contents: International Journal of Tomography & Statistics
Date: Tue, 12 Jul 2005

International Journal of Tomography & Statistics   June-July 2005 Vol. 3
                  Table of Contents

http://www.geocities.com/isder_ceser/ijts1.html

The authors should submit two complete hard copies of manuscript of
their unpublished and original paper to the
   Tanuja Srivastava, Executive Editor, IJTS
Department of Mathematics, Indian Institute of Technology,
Roorkee-247667, INDIA, email: tanujfma@iitr.ernet.in

From: Lothar Reichel <reichel@math.kent.edu>
Subject: Contents, Electronic Trans. on Numerical Analysis

Date: Fri, 17 Jun 2005

Electronic Transactions on Numerical Analysis   2004   Vol. 18
                    Table of Contents

Special Volume on the Occasion of ETNA's 10th Anniversary.

ETNA is available at http://etna.mcs.kent.edu and at several mirror
sites.

From: Hans Schneider <hans@math.wisc.edu>
Subject: Contents, Linear Algebra and its Applications
Date: Sun, 3 Jul 2005

Linear Algebra and its Applications   August 1 2005   Volume 405
                    Table of Contents

Special Issue devoted to papers presented at the Aveiro Workshop on
Graph Spectra, 10-12 April 2006

LINEAR ALGEBRA AND ITS APPLICATIONS
Special Issue in honor of Paul Fuhrmann

Linear Algebra and its Applications is pleased to announce a special
issue in honor of Professor Paul Fuhrmann on the occasion of his 70th
birthday on 5 August 2007 in recognition of his many important and
fundamental contributions to linear algebra and control theory.

We solicit papers for the special issue within the entire scope of LAA
or the research interests of Paul Fuhrmann. We welcome papers within
system and control theory and operator theory; in particular in

   * algebraic systems theory
   * approximation, identification and interpolation
   * behavioral theory
   * coding theory with relations to systems theory
   * functional models
   * geometric control
   * hybrid and discrete event systems
   * matrix-valued and operator-valued functions
   * model reduction
   * multidimensional systems
   * numerical and computational aspects
   * operators, systems, and linear algebra
   * polynomial methods in systems theory
   * robust and optimal control
   * spectral factorizations
   * stability theory
   * system structure
   * uncertain systems
   * Wiener-Hopf factorizations

The deadline for submission of papers is 31 March 2006. Papers for
submission should be sent to any of the five special editors,
preferably pdf files as attachments in email, and will be subject to
normal refereeing procedures according to LAA standards:

   Athanasios C. Antoulas.
   Department of Electrical & Computer Engineering
   Rice University
   P.O. Box 1892 - MS 380
   Houston, Texas 77251-1892, USA
   aca@rice.edu

   Uwe Helmke
   Department of Mathmematics
   University of Wuerzburg
   Am Hubland
   97074 Wuerzburg, Germany
   helmke@mathematik.uni-wuerzburg.de

   Joachim Rosenthal
   Mathematics Institute
   University of Zurich
   Winterthurerstr 190

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rosenthal@math.unizh.ch

Victor Vinnikov
Department of Mathematics
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vinnikov@math.bgu.ac.il

Eva Zerz
Department of Mathematics
University of Kaiserslautern
Erwin-Schroedinger-Str. 48
67663 Kaiserslautern, Germany
zerz@mathematik.uni-kl.de

The editor-in-chief responsible for this special issue is Hans Schneider.

Submitted by: Hans Schneider
Mathematics Department, Van Vleck Hall, University of Wisconsin,
480 Lincoln Drive, Madison, WI 53706-1313 USA
Office Phone: 608-262-1402
Math Dept Phone: 608-263-3054   Email: hans@math.wisc.edu
Math Dept Fax: 608-263-8891   http://www.math.wisc.edu/~hans
------- end -------

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
     SIAM Conference on Imaging Science
     SIAM Conference on Mathematics for Industry -- Registration
     Position, University of Haifa: Dean of Faculty of Sciences
     Table of Contents: Inverse Problems
     Table of Contents: Mathematics of Control, Signals, and Systems
     Table of Contents: Linear Algebra and Its Applications

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet
             ** Note: this website will be unavailable
              September 2, 2005 - September 5, 2005

From: "Kirsten Wilden" <Wilden@siam.org>
To: SIAM Conference on Imaging Science -- Call for Papers
Date: Thu, 21 Jul 2005

Subject: SIAM Conference on Imaging Science -- CFP Deadlines

Conference Name: SIAM Conference on Imaging Science
Location: Minneapolis, Minnesota, USA
Dates: May 15-17, 2006

Invited Plenary Speakers:
  Emmanuel Candes, California Institute of Technology
  Frederic Guichard, DxO Labs
  Hugues Hoppe, Microsoft Research
  Robert Hummel, Defense Advanced Research Projects Agency
  Alexander Katsevich, University of Central Florida
  Luminita Vese, University of California, Los Angeles

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/is06/

                       Deadlines

Minisymposium proposals: October 14, 2005

Abstracts for all contributed and minisymposium presentations:
  November 14, 2005

Short Course proposals
  (see http://www.siam.org/meetings/guidelines/short_guide.php):
  November 14, 2005

For additional information, contact SIAM Conference Department at
meetings@siam.org.

From: "Kirsten Wilden" <Wilden@siam.org>

Subject:SIAM Conf. Mathematics for Industry -- Registration Available
Date: Tue, 9 Aug 2005

Subject: SIAM Conference on Mathematics for Industry
        Registration Now Available

Conference Name: SIAM Conference on Mathematics for Industry
Location: Detroit, Michigan
Dates: October 24-26, 2005

Invited Plenary Speakers:
  Paul Deitz, U.S. Army Materiel Systems Analysis Activity (AMSAA)
  Debra Elkins, General Motors
  Stephen Graves, Massachusetts Institute of Technology
  Karl Kempf, Intel Corporation
  Alan King, IBM T. J. Watson Research Center
  Burton Smith, Cray Inc.

Registration is Now Available

Pre-Registration Deadline: September 22, 2005
Hotel Reservation Deadline: September 22, 2005

Registration and the preliminary program for this conference are
available at:
        http://www.siam.org/meetings/mi05/

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

From: Yair Censor <yair@math.haifa.ac.il>
Subject: Position: Dean of Faculty of Sciences, Science Education
Date: Wed, 10 Aug 2005

The University of Haifa initiated a search for the next Dean of the
Faculty of Sciences and Science Education.

Kindly help us distribute the following information among your
colleagues and on professional electronic lists to which you have
access.

The search committee will be pleased to consider candidacies from
within or outside the university, from Israel or from abroad. The
deadline for submissions of candidacies is November 15, 2005.

Please go to:

    http://science.haifa.ac.il/search_dean_heb.htm

for the Hebrew version of the tender (michraz) or to:

    http://science.haifa.ac.il/search_dean_eng.htm

for the English version. Please feel free to forward this information
to interested individuals and to post it over to other nets.

Prof. Yair Censor
Dept. of Mathematics, Univ. of Haifa,
Haifa, Israel.

Acting Dean, Faculty of Sciences and Science Education,
The University of Haifa.

Homepage: http://math.haifa.ac.il/censor.html

From: Liz Martin <liz.Martin@iop.org>
Subject: Contents list for Inverse Problems, August 2005
Date: Thu, 21 Jul 2005

Inverse Problems   August 2005   Volume 21, Issue 4
                    Table of Contents

Priorconditioners for linear systems
D Calvetti and E Somersalo

Interferometric array imaging in clutter
L Borcea, G Papanicolaou and C Tsogka

Commutativity of Pfaffianization and B\"acklund transformations: the
KP equation   X-B Hu and J-X Zhao

On a quasi-optimal regularized projection method for solving operator
equations of the first kind   S G Solodky

Submitted by: Elizabeth Martin, Senior Production Editor, Inverse
Problems
Institute of Physics Publishing, Dirac House, Temple Back,
Bristol BS1 6BE   UK
Tel: +44 (0)117 929 7481   Fax: +44 (0)117 929 4318
E-mail: liz.martin@iop.org WWW: http://www.iop.org

From: "magrijn-secretary support" <magrijn.secsup@tip.nl>
Subject: Table of Contents: Journal MCSS
Date: Tue, 26 Jul 2005

Mathematics of Control, Signals, and Systems   2005 Vol 17, No. 2
                  Table of Contents

Risk sentitive identification of linear stochastic systems
Laszlo Gerencser, Gyorgy Michaletzky and Zsuzsanna Vago

Geometric homogeneity with applications to finite-time stability
Sanjay P. Bhat and Dennis S. Bernstein

Regularization and frequency-domain stability of well-posed systems
Yuri Latushkin, Timothy Randolph and Roland Schnaubelt

INFORMATION
The tables of contents of MCSS and the .pdf files
of its papers are available from the publisher Springer at:
   http://link.springer.de/link/service/journals/00498/index.htm

Information on MCSS is available also at the Editors' home pages:
   www.cwi.nl/~schuppen/mcss/mcss.html
   www.math.rutgers.edu/~sontag/mcss.html

Eduardo Sontag and Jan van Schuppen (Editors)

Address for submissions by email or regular mail:
J.H. van Schuppen (Editor-in-Chief MCSS)
CWI
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1090 GB Amsterdam
The Netherlands
Email mcss@cwi.nl

Submitted by:
Corry Magrijn (Secretary) for
Jan H. van Schuppen (Editor-in-Chief MCSS)

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Call for Papers: Special Issue in honor of Miroslav Fiedler

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Linear Algebra and its Applications   September 15, 2005   Vol. 407
Table of Contents

J -orthostochastic matrices of size 3 =D7 3 and numerical ranges of
Krein space operators
Hiroshi Nakazato, Nat=E1lia Bebiano and Joao da Providencia

Rank of adjacency matrices of directed (strongly) regular graphs
L.K. Jorgensen

On the generalized spectral subradius
Adam Czornik

Problems of classifying associative or Lie algebras and triples of
symmetric or skew-symmetric matrices are wild
Genrich Belitskii, Ruvim Lipyanski and Vladimir V. Sergeichuk

Exponents of two-colored digraphs with two cycles
Yubin Gao and Yanling Shao

Pfaffianization of the discrete three-dimensional three wave
interaction equation
Gegenhasi, Jun-Xiao Zhao, Xing-Biao Hu and Hon-Wah Tam

The number of zeros of a tight sign-central matrix
Suk-Geun Hwang, Ik-Pyo Kim, Si-Ju Kim and Sang-Gu Lee

Call for Papers: Special Issue in honor of Paul Fuhrmann

All papers published or about to be published by LAA are now
available from Science Direct.

Submitted by: Hans Schneider
Mathematics Department, Van Vleck Hall, University of Wisconsin,
480 Lincoln Drive, Madison, WI 53706-1313 USA
Office Phone: 608-262-1402
Math Dept Phone: 608-263-3054   Email: hans@math.wisc.edu
Math Dept Fax: 608-263-8891   http://www.math.wisc.edu/~hans
------- end -------

IPNet Digest   Volume 12, Number 09   October 1, 2005

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
      Inverse Problems Workshop at University of Leeds
      SIAM Conference on Analysis of Partial Differential Equations
      SIAM Conference on Parallel Processing
      SIAM Conference on Financial Mathematics and Engineering
      SIAM 2006 Annual Meeting
      PhD/Postdoctoral position in Computational Inverse Problems
      Postdoctoral position in Inverse Problems
      Faculty Position in Applied Mathematics
         e-Bulletin of Statistics and Economics
      Special Issue: Journal of Integral Equations and Applications
      Table of Contents: Inverse Problems
      Table of Contents: Inverse Problems in Science and Engineering
      Table of Contents: Nonlinear Analysis: Modelling and Control
      Table of Contents: Linear Algebra and Its Applications

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: Daniel Lesnic <amt5ld@maths.leeds.ac.uk>
Subject: Inverse Problems Workshop
Date: Tue, 6 Sep 2005

A "British Inverse Problems Workshop" in the honour of
Dr. Lionel Elliott 65th birthday will be held in the
School of Mathematics at the University of Leeds
on Monday afternoon on 31 October 2005.

12.30 - 1.20 Lunch (Senior Common Room at Leeds University)

 1.30 - 2.00 Tomas Johansson (Linkoping University, Sweden visiting
                              Leeds University, UK)
           "Reconstruction of a sound-soft obstacle"

 2.05 - 2.55 Sin Kim (Cheju National University, Korea visiting
                      University of Manchester, UK)
           "Electrical resitance imaging of binary mixtures"

 3.05 - 3.55 Cees van Berkel (Philips Research Laboratories, UK)
           "Factorization method for reconstruction of grounded
objects"

 4.00 - 4.30 Tea/Biscuits (School of Mathematics, Level 9)

Dr. Daniel Lesnic
Department of Applied Mathematics, University of Leeds, Leeds LS2 9JT,
UK.
e-mail: amt5ld@amsta.leeds.ac.uk
tel: +44-(0)113-3435181   fax: +44-(0)113-3435090

Conference Name: SIAM Conference on Analysis of Partial Differential
Equations
Location: Boston, Massachusetts
Dates: July 10-12, 2006

Invited Speakers:

Andrea Bertozzi, University of California, Los Angeles
(Joint Speaker with the 2006 SIAM Annual Meeting)

Mikhail Feldman, University of Wisconsin, Madison

Barbara Lee Keyfitz, Fields Institute, Canada, and University of Houston
(Joint Speaker with the 2006 SIAM Annual Meeting)

Tai-Ping Liu, Stanford University

George Papanicolaou, Stanford University

Eitan Tadmor, University of Maryland, College Park

Short Courses:

Two short courses will be held immediately preceding the conference on
Sunday, July 9, 2006 at the same location.

SC1 Constantine M. Dafermos, Brown University
Conservation Laws and Continuum Physics

SC2 Lawrence C. Evans, University of California, Berkeley
Recent Developments in Weak Convergence Methods for PDE

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/pd06/index.php

Deadlines

Minisymposium proposals: January 10, 2006

Abstracts for all contributed and minisymposium presentations:
January 24, 2006

For additional information, contact SIAM Conference Department at
meetings@siam.org.

SIAM Conference on Parallel Processing for Scientific Computing San
Francisco, California, USA, February 22-24, 2006

The extended deadline for the SIAM Conference on Parallel Processing
for Scientific Computing is September 30, 2005!

Go to http://meetings.siam.org/start.cfm?CONFCODE=PP06 to submit.

Additional information about the meeting is available at
http://www.siam.org/meetings/pp06/

Conference Themes

Main Theme:
Large-Scale Parallel Computing with emphasis on Algorithms, Tools and
Techniques for performing scientific computations on 100 to 100,000
processors

Subthemes:
- scalable algorithms including latency-tolerant schemes
- programming models and languages for mathematical applications
- data-intensive science and engineering applications
- high-compute density systems (e.g., clusters, cell processor,...)
- performance modeling

Organizing Committee Co-chairs
Charbel Farhat, Stanford University
William Gropp, Argonne National Laboratory

Invited Plenary Speakers (partial list)
Giulia A. Galli, Lawrence Livermore National Laboratory
Laxmikant Kale, University of Illinois
Axel Klawonn, Universitt Duisburg-Essen, Germany
Dominique Lavenier, IRISA, Rennes, France
Steve Plimpton, Sandia National Laboratories
Barry Smith, Argonne National Laboratory
Mateo Valero, Technical University of Catalonia, Spain
Katherine Yelick, University of California at Berkeley

For additional information, contact SIAM Conference Department at
meetings@siam.org

From: "Darrell Ross" <Ross@siam.org>
Subject: SIAM Conference on Financial Mathematics and Engineering
Date: Thu, 15 Sep 2005

SIAM Conference on Financial Mathematics and Engineering
Location: Boston, Massachusetts
Dates: July 10-12, 2006

Meeting Themes:

Applications of Stochastic Control in Finance
Computational Methods in Finance
Derivative Pricing
Energy Markets
Multiscale Phenomena in Finance

The Call for Presentations is available at:
http://www.siam.org/meetings/fm06/index.php

Deadlines:

* January 10, 2006: Minisymposium proposals

* January 24, 2006: Abstracts for all contributed and minisymposium
presentations

For additional information, contact SIAM Conference Department at
meetings@siam.org.

From: "Connie Young" <Young@siam.org>
Subject: 2006 SIAM Annual Meeting
Date: Thu, 15 Sep 2005

2006 SIAM Annual Meeting
Location: Boston, Massachusetts
Dates: July 10-14, 2006

Meeting Themes:
* Dynamical systems
* Industrial problems
* Mathematical biology
* Numerical analysis
* Orthogonal polynomials
* Partial differential equations

The Call for Presentations is available at:
http://www.siam.org/meetings/an06/index.php

Deadlines
* January 10, 2006: Minisymposium proposals
* January 24, 2006: Abstracts for all contributed and minisymposium
presentations:

For additional information, contact SIAM Conference Department at
meetings@siam.org.

From: Andreas Neubauer <neubauer@indmath.uni-linz.ac.at>
Subject: PhD/Postdoc position at Johannes Kepler University, Austria
Date: Mon, 12 Sep 2005

PhD/Postdoc position

The SFB (SpezialForschungsBereich) F013 "Numerical and Symbolic
Scientific Computing" at the Johannes Kepler University Linz offers a
position up to three years in its subproject F1308 "Computational
Inverse Problems and Applications". Applicants should have a broad
knowledge of inverse problems. Experience in parameter identification
problems is most welcome.

This position is preferably open for phd-students, however, also
post-docs may apply.

Applications should be sent either per email to
          neubauer@indmath.uni-linz.ac.at
or by mail to

Prof.Dr. Andreas Neubauer
Industrial Mathematics Institute

Johannes Kepler University
Altenberger Str. 69
A-4040 Linz, Austria

From: "Jaan Janno" <janno@ioc.ee>
Subject: postdoctoral position in Tallinn
Date: Sat, 24 Sep 2005

Dear colleague,

A postdoctoral research position in inverse problems is opened at
Tallinn University of Technology.   The funding is available from now
to June of 2008. Applications for shorter periods may also be
considered. However, the position should be filled not later than in
the middle of 2006.

The net salary is approximately 1200 Euros per month. This is
complemented by some money for scientific trips.

It is required that the applicant has defended its PhD degree not more
than 5 years ago.

No teaching is necessary. This is a pure research position. The
research must be related to inverse or ill-posed problems.   At least
3 scientific papers must be written during the stay. (May be
co-authored.)

People applying for this position should submit
1) a short CV containing
        Name
        Date of birth
        Citizenship
        PhD degree (when and where defended, title of thesis)
        Supposed beginning and end of the stay

2) list of publications

Please submit the CV and list of publications to my e-mail address
janno@ioc.ee .

If you have questions, I am ready to answer them.

Yours Sincerely,
Jaan Janno

From: Jodi Mead <mead@diamond.boisestate.edu>
Subject: Faculty Position at Boise State University
Date: Thu, 29 Sep 2005

                FACULTY POSITION IN APPLIED MATHEMATICS
                     BOISE STATE UNIVERSITY

The Department of Mathematics at Boise State University invites
applications for a beginning Assistant Professor position beginning
Fall 2006. A Ph.D. in mathematics or statistics is required and a
demonstrated, or potential for, excellence in teaching and research
are primary requirements for the position. Preference will be given
to an applied mathematician or statistician who can assume a

leadership role in the development of research programs which interact with Biology, Electrical and Computer Engineering, or Geophysics. The Department of Mathematics offers bachelors and masters degrees in mathematics and mathematics education and has 23 tenure or tenure-track faculty whose research and teaching interests include low dimensional topology, mathematics education, numerical analysis, set theory and statistics.

Boise State University is a growing institution with more than 18,000 students serving Idaho's metropolitan center. As the State's capital and business, financial and cultural center, Boise is recognized as one of America's best places to live. A favorable cost of living, coupled with moderate climate and a wide variety of cultural and recreational opportunities, contribute to an outstanding quality of life for our faculty. A vibrant intellectual community draws from scientists at the University, regional high-tech industries, and numerous state and federal agencies.

Review of applications will begin on January 9, 2006 and continue until finalists have been identified. Applications should include an AMS cover sheet, vitae, a statement of research interests, a statement of teaching philosophy, transcripts, and three professional references (one of which should address the applicant's teaching) all of which should be sent to:

    Applied Mathematics Search AA-0029-56
    Boise State University
    1910 University Dr.
    Boise, ID 83725-1555

For more information consult our website: http://math.boisestate.edu or contact us at facultysearch@math.boisestate.edu.

Boise State University is an affirmative action, equal opportunity employer. Women and minorities, individuals with disabilities and covered veterans are encouraged to apply. Disabled veterans, war veterans and honorably discharged veterans who are residents of the state of Idaho will receive credit in accordance with Idaho State Law upon submission of documentation of meeting the criteria set forth by law. EEO/AA Employer.

From: "Dr. Srivastava" <tanujfma@yahoo.com>
Subject: e-Bulletin of Statistics and Economics
Date: Sat, 3 Sep 2005

You are invited to join the "e-Bulletin of Statistics & Economics" (eBSE)

    http://groups.yahoo.com/group/eBSE/

Description

Bulletin of Statistics and Economics (eBSE)

Bulletin of Statistics and Economics (eBSE), is a quarterly e-bulletin of applied mathematics, statistics and economics. eBSE may be subscribed and contributed, by students/academicians/researchers, without any fee. Each issue of BSE may contain the following articles and news items.

Articles and Reviews:
* Articles
* Book Reviews

News:
* Appointments
* People
* Others
* Recent Theses

Jobs/Vacancy:
* Positions/Situations
* Doctoral/Post-Doctoral Fellowship

Conferences, Seminar, Workshops, Meetings, and Events:
* Conference/Workshop Announcements.
* Conference Listing.

Publishers' Announcements:
* Journal News
* New Journal
* Special Issue
* Proceedings of Conferences/Seminars/Symposia
* Table of Contents

From: "Rainer.Kress" <kress@math.uni-goettingen.de>
Subject: Special Issue, The Journal of Integral Equations and
Applications.
Date: Mon, 26 Sep 2005

This is to draw your attention to a special issue
of the Journal of Integral Equations and Applications
on "Integral Equations and Inverse Boundary Value Problems", see
   http://rmmc.eas.asu.edu/abstracts/jie/future/special.htm
Contributions to the special issue should be sent, before April 1,
2006, to the Guest Editor:

Prof. Dr. Rainer Kress
Institutefuer Numerische und Angewandte Mathematik
Georg-August-Universitaet Goettingen
Lotzestrasse 16-18
D-37083 Goettingen
Germany

From: Liz Martin <liz.Martin@iop.org>
Subject: Contents, Inverse Problems, Vol. 21, Issue 5, October 2005
Date: Fri, 23 Sep 2005

Inverse Problems   October 2005   Volume 21, Issue 5
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PAPERS

Inverse source problem in an anisotropic medium by boundary
measurements   A El Badia

Optical tomography as a PDE-constrained optimization problem
G S Abdoulaev, K Ren and A H Hielscher

Identification of immersed obstacles via boundary measurements
C Alvarez, C Conca, L Friz, O Kavian and J H Ortega

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peakon limit   Y Matsuno

Tikhonov replacement functionals for iteratively solving nonlinear
operator equations   R Ramlau and G Teschke

Time-reversal-based detection in random media
G Bal and O Pinaud

Inverse medium scattering for the Helmholtz equation at fixed frequency
G Bao and P Li

A stability estimate for a Cauchy problem for an elliptic partial
differential equation   L Eld\'en and F Berntsson

A note on the CQ algorithm for the split feasibility problem
B Qu and N Xiu

A regularization method for the function reconstruction from
approximate average fluxes   J Huang and Y Chen

Multidimensional Borg--Levinson theorem
Y Kurylev, M Lassas and R Weder

Statistical elimination of boundary artefacts in image deblurring
D Calvetti and E Somersalo

Migration/inversion: think image point coordinates, process in
acquisition surface coordinates
N Bleistein, Y Zhang, S Xu, G Zhang and S H Gray

Riccati equations for scattering matrices on level surfaces
Y Chen

A linear integral equation approach to the Robin inverse problem
F Lin and W Fang

On local regularization methods for linear Volterra equations and
nonlinear equations of Hammerstein type   P K Lamm and Z Dai

Several solution methods for the split feasibility problem
J Zhao and Q Yang

CORRIGENDUM

FBP algorithms for attenuated fan-beam projections
J You, G L Zeng and Z Liang

All articles are free for 30 days after publication on the web. This
issue
is available at: http://stacks.iop.org/0266-5611/21/i=3D5

From: "jamesverebeck" <jamesverebeck@comcast.net>
Subject: October, Inverse Prob in Sc and Eng
Date: Sat, 1 Oct 2005

Inverse Problems in Science and Engineering Oct. 2005 Vol. 13, No. 5
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From: Romas Baronas <romas.baronas@maf.vu.lt>
Subject: Contents, Nonlinear Analysis: Modelling and Control
Date: Fri, 23 Sep 2005

Nonlinear Analysis: Modelling and Control   2005   Volume 10, Number 3
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Nonlinear Analysis: Modelling and Control, an official journal of
the Lithuanian Association of Nonlinear Analysts (LANA), welcomes
contributions from the international community.

A free on-line edition is available at:
http://www.lana.lt/journal/issues.php

For a paper submission, please refer to http://www.lana.lt/journal

Dr. Romas Baronas, Journal Secretary,
Nonlinear Analysis: Modelling and Control

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Linear Algebra and its Applications   1 November 2005   Volume 409
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Special Issue in honor of Pauline van den Driessche

Edited by Steve Kirkland, Judith J. McDonald, Dale D. Olesky and
Michael J. Tsatsomeros

Matrix analysis of a Markov chain small-world model
Minerva Catral, Michael Neumann and Jianhong Xu

A note on generalized Hessenberg matrices   L. Elsner

A sharp upper bound on the largest Laplacian eigenvalue of weighted
graphs   Kinkar Ch. Das and R.B. Bapat

Spectral properties of a near-periodic row-stochastic Leslie matrix
Mei-Qin Chen and Xiezhang Li

http://www.sciencedirect.com/science/issue/5653-2005-995909999-606501

Submitted by: Hans Schneider
Mathematics Department, Van Vleck Hall, University of Wisconsin,
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Office Phone: 608-262-1402
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Math Dept Fax: 608-263-8891   http://www.math.wisc.edu/~hans
------- end -------

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
     Minisymposium on Inverse Engineering at ECCM-2006
     Int'l Workshop on Accurate Solution Eigenvalue Problems
     SIAM Conference on Nonlinear Waves and Coherent Structures
     SIAM Conference on Parallel Processing for Scientific Computing
     Assistant Professor Position in Inverse Problems
     Position at Boston Medical Device Startup
     Special Issue in IM Radiation Therapy
     Int'l Journal Applied Mathematics & Statistics
     Table of Contents: Mathematics of Control, Signals, and Systems
     Table of Contents: Linear Algebra and Its Applications

Submissions for IPNet Digest:
        Mail to ipnet-digest@math.msu.edu

Information about IPNet:
        http://www.mth.msu.edu/ipnet

From: "HELCIO ORLANDE" <helcio@mecanica.coppe.ufrj.br>
Subject: Minisymposium on Inverse Engineering at ECCM-2006
Date: Tue, 18 Oct 2005

Dear Colleague:

A minisymposium on "Inverse Engineering" (MS.36) is being organized
during the III European Conference on Computational Mechanics, which
is going to be held in Lisbon, June 5-8, 2006.

Abstracts should be submitted online through the conference website
(http://www.cssm2006.org) before November 14, 2005. Further details
about the conference and the abstract submission can be found below.

Please consider presenting your work in this minisymposium.

Sincerely yours,

George S. Dulikravich
Helcio R. B. Orlande

Prof. Helcio R. B. Orlande
Department of Mechanical Engineering, POLI/COPPE
Federal University of Rio de Janeiro, UFRJ
Cid. Universitaria, Cx. Postal: 68503
Rio de Janeiro, RJ, 21941-972
Brasil   Email: helcio@mecanica.coppe.ufrj.br
Fax: 55-21-2562-8383   Phone: 55-21-2562-8405

CALL FOR ABSTRACTS

III European Conference on Computational Mechanics

Solids, Structures and Coupled Problems in Engineering
ECCM-2006, Lisbon, Portugal, 5-8 June, 2006

Dear Colleague

 -- On behalf of the Organizing Committee, I invite you to submit
one-page Abstracts for presentation in the III European Conference on
Computational Mechanics - Solids, Structures and Coupled Problems in
Engineering (ECCM-2006), which will be held in Lisbon, Portugal, 5-8
June, 2006.

 -- The DEADLINE for submission of all ABSTRACTS is: NOVEMBER 14th,
2005.

 -- All abstracts, including those of the authors that accepted to
present Invited Lectures or participate in a Mini-Symposium, must be
SUBMITTED ONLINE in the Webpage of our Conference
http://www.cssm2006.org

 -- Author's instructions and templates are available in the page
http://www.cssm2006.org/templates.php

 -- Access to online submission is done through the page
http://www.cssm2006.org/submission.php
which is linked to our Conference Management System.

 -- In the process of submitting their Abstracts, the Authors must give
their preference on the topics that fit better their contributions.
Those that accepted to present Invited Lectures or to participate in
some Mini-Symposium should choose as their FIRST PREFERENCE the options
"Plenary and Keynote Lectures" or the appropriate "Mini-Symposium",
respectively. All other authors must give their preferences to some
of the planned Mini-symposia or to some of the general Topics of the
Conference.

 -- The Abstracts will be reviewed by the Organizers of the
Mini-Symposia or by Members of the Scientific Committee. Notification
of Acceptance will be sent on January 16th, 2006.

The lists of the general Topics of the Conference and the planned
Mini-Symposia are given in the end of this message.

We appreciate very much your interest in participating in ECCM-2006.

Please notice that there is small change in the Title of the Conference.
Best Regards,

Prof. Carlos A. Mota Soares, (Co-Chairperson of ECCM-2006)
cssm2006@dem.ist.utl.pt
http://www.cssm2006.org

    List of Conference Topics:
A) Computational Methods
B) Computational Solid Mechanics
C) Computational Structural Mechanics
D) Coupled Problems
E) Industrial Applications

    List of Mini-Symposia and Organizers:
1 Acoustics Structural Interactions "Tadeu, A. (Portugal)"
2 Adaptive Structures "Suleman, A. (Portugal)"

43 Modelling of Functionally graded materials and structures "Batra, R.
   (USA), Ferreira, A. (Portugal)"
44 Multibody Dynamics "Ambr=C3=B3sio, J. (Portugal)"
45 Multiphysics Modelling in Geomechanics "Borja, R. I. (USA),
   Mont=C3=A1ns, F.J. (Spain), Tamagnini, C. (Italy)"
46 Multiscale Mechanics of biological materials and other natural
   composites "Hellmich, C. (Austria)"
47 Multiscale Method for Structural Non-Linear and Dynamic Problems
   "Allix, O (France), Rey, C. (France)"
48 Neural Networks and Soft Computing in Solid and Structural Mechanics
   "Waszczyszyn, Z. (Poland)"
49 Nonlinear Dynamics of Moving Structures "Zahariev, E. (Bulgaria),
   Mayo Nunez, J. Spain)"
50 Non-Linear Vibration of Structures "Ribeiro, P. (Portugal)"
51 Optimization and Robust Design for Industrial-sized Problems
   "Bletzinger, K. U. (Germany), Duddeck, F. (Germany), Meyer
   M. (Germany)"
52 Optimization Methods "Judice, J. J. (Portugal)"
53 Optimization of Metal Forming "Batoz, J. L. (France)"
54 Properties of Wet Granular Materials "Blaszczuk, J. (Poland)"
55 Reliability "Melchers, R. E. (Australia)"
56 Shape and Topological Sensitivity Analysis: Theory and Applications
   "Feij=C3=B3o, R. (Brazil), Taroco, E. (Brazil)"
57 Shell and Spatial Structures "Ramm, E. (Germany)"
58 Simulation of Non-Gaussin Stochastic Processes Fields with
   Applications to Structural Engineering Problems "Papadrakakis,
   M. (Greece)"
59 Soft Tissue "Jorge, R. (Portugal)"
60 Stability and Non-Linear Behaviour of Thin-Walled Members and
   Structures "Camotim, D. (Portugal)"
61 Structural and Multidisciplinary Optimization "Herskovits,
   J. (Brazil)"
62 Structural Dynamics "Azevedo, J. (Portugal)"
63 Structural Health Monitoring "Ostachowicz, Wieslaw (Poland)"
64 System Identification and Finite Element Updating "Cunha,
   A. (Portugal)"
65 Temperature and time dependent effects in steel and concrete
   structures "Silva, L. S. (Portugal), J=C3=BAlio, E. (Portugal)"
66 Vehicle Dymanics "Schiehlen, W. (Germany)"
67 Vibroaccoustics "Ohayon R. (France)"

From: Jesse Barlow <barlow@cse.psu.edu>
Subject: Int'l Workshop on Accurate Solution Eigenvalue Problems
Date: Sun, 09 Oct 2005

International Workshop on Accurate Solution of Eigenvalue Problems VI
                        IWASEP VI

Information Science and Technology Building
 The Pennsylvania State University
 University Park, PA

May 22-25,2006
Abstract Deadline: March 1, 2006

In cooperation with SIAM.

Organizers:

Jesse Barlow, The Pennsylvania State University (Local Manager and Chair),
Zlatko Drmac, University of Zagreb, Germany
Ivan Slapnicar, University of Split, Croatia
Kresimir Veselic, Fernuniversitaet Hagen, Germany

The purpose of this workshop is to bring together experts on accuracy issues in the numerical solution of eigenvalue problems for four days of research presentations and discussions. This is the sixth such workshop. The most recent was held in Hagen, Germany, June 28-July 1, 2004.

The following researchers have agreed to give invited talks at IWASEP VI:
Christopher Beattie, Virginia Polytechnic and State University
James Demmel, University of California at Berkeley
Inderjit Dhillon, University of Texas
Mark Embree, Rice University
Gene Golub, Stanford University
Nicholas J. Higham, University of Manchester
Plamen Koev, MIT
Volker Mehrmann, TU-Berlin
Ren-Cang Li, University of Kentucky
Ilse Ipsen, North Carolina State University
Beresford Parlett, University of California at Berkeley
Danny Sorensen, Rice University
G.W. Stewart, University of Maryland

In addition, the organizers welcome submitted presentations and posters that are consistent with the theme of the meeting. To submit an abstract for a presentation or poster, please visit the web page http://www.cse.psu.edu/~iwasep6/Apply.html. A prize will be given for the best poster. Deadline for abstracts is March 1, 2006.

Some travel funding is available for graduate students and new Ph.D.'s.

We expect that registration materials will be available soon through the workshop web page http://www.cse.psu.edu/~iwasep6/

This workshop is supported by the National Science Foundation and the Pennsylvania State University.

For further information please email iwasep6@cse.psu.edu.

From: "Kirsten Wilden" <Wilden@siam.org>
Subject: SIAM Conference on Nonlinear Waves and Coherent Structures
Date: Mon, 31 Oct 2005

Call For Paper Deadlines

Conference Name: SIAM Conference on Nonlinear Waves and Coherent Structures
Location: University of Washington, Seattle, Washington
Dates: September 9-12, 2006

Invited Plenary Speakers:
Frederic Dias, ENS, France
Benjamin J. Eggleton, University of Sydney, Australia
Mariana Haragus, Universite de Franche-Comte, France
Lene Hau, Harvard University
Philip K. Maini, University of Oxford, United Kingdom

James McWilliams, University of California, Los Angeles
Bjorn Sandstede, University of Surrey, United Kingdom

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/nw06/index.php

Deadlines

Minisymposium proposals: February 8, 2006

Abstracts for all contributed and minisymposium presentations: March 8, 2006

For additional information, contact SIAM Conference Department at meetings@siam.org.

From: "Connie Young" <Young@siam.org>
Subject: SIAM Conference on Parallel Processing for Scientific Computing
Date: Wed, 19 Oct 2005

SIAM Conference on Parallel Processing for Scientific Computing
February 22-24, 2006
San Francisco, CA
Sir Francis Drake Hotel

POSTER DEADLINE EXTENDED to JANUARY 12, 2006

Contributed presentations in poster format are invited in all areas consistent with the conference themes. Poster presentations involve the use of non-electronic visual aids for mounting on a 4' x 8' poster board. A poster session is one to two hours long. Each contributor must submit a title and a brief abstract not to exceed 75 words.

Additional submissions for poster presentations are being accepted through January 12, 2006. Interested parties should submit the following information to Omar Ghattas, (omar@ices.utexas.edu).

Presenting author: name, affiliation, e-mail address=20
Each co-author: name, affiliation, e-mail address=20
Poster title Brief Abstract (75 words or less)

Visit http://www.siam.org/meetings/pp06/index.htm for more information about the conference.

From: Jennifer Mueller <mueller@math.colostate.edu>
Subject: Assistant Professor position in Inverse Problems
Date: Wed, 5 Oct 2005

The Department of Mathematics at Colorado State University invites applications for two tenure track faculty positions at the rank of Assistant Professor. The successful applicant must complement existing faculty research areas. Our plan is to fill one position from the field of algebraic combinatorics, and the other from either differential geometry or inverse problems. Exceptional candidates in all areas of mathematics will, however, be considered and are encouraged to apply.

Applicants should submit an AMS cover sheet, complete curriculum vitae,

summary of future research plans, evidence of effective teaching, and at least three letters of recommendation. Electronic submissions are welcome and should be sent to search05@math.colostate.edu or submitted using the service provided by the AMS at http://www.mathjobs.org. Alternatively, all materials may be sent mailed to:

Faculty Hiring Committee
Department of Mathematics
Colorado State University
Fort Collins, CO 80523-1874

The Department of Mathematics is conducting an ongoing search and applications will be reviewed as they are received. For full consideration,
applications must be received by November 28, 2005, however, applications will be accepted until the positions are full.

The Department has over 300 undergraduate majors and 65 graduate students, with 24 tenure-track faculty. Colorado State University has an enrollment of 25,000 students and is located in Fort Collins, Colorado. More information may be obtained from the Department's Web page at http://www.math.colostate.edu.

Submitted by: Jennifer Mueller   Office: 970.491.7417
Assoc. Prof. of Mathematics   FAX: 970.491.2161
124 Weber Building
Colorado State University   mueller@math.colostate.edu
Fort Collins, CO 80523-1874   www.math.colostate.edu/~mueller

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From: "Rhythmed HR" <hrnm@rhythmed.com>
Subject: Position at Boston Medical Device Startup
Date: Mon, 17 Oct 2005

Job Description:
Recently funded medical device start-up is designing an innovative system to treat cardiac arrhythmia. The system includes state of the art numerical modeling, 3D imaging and catheter fabrication technologies.

The Senior Algorithm Developer will be responsible for the design and development of the company's core algorithm.

The ideal candidate will have experience in physical modeling and thorough low level understanding of numerical methods such as FEM/BEM. Programming experience in C++ and Matlab is a must. Familiarity with meshing, efficient numerical solvers and electromagnetic propagation is a plus.

Advanced degree in Applied Math/Physics or ME/EE/CS with relevant experience.

Company Description:
The company is a Boston based start-up developing an innovative medical device for the treatment of cardiac arrhythmia. The market for the treatment of arrhythmia is one of the fastest growing and most attractive opportunities in medical devices. We are looking for bright individuals who are interested in making a high impact in a dynamic and exciting entrepreneurial environment.

The company is offering a competitive salary and benefits package as
well as a highly attractive stock option plan.

To apply, please send resume to hrnm@rhythmed.com.

From: Hans Schneider <hans@math.wisc.edu>
Subject: Special Issue in IM Radiation Therapy
Date: Fri, 14 Oct 2005

             LINEAR ALGEBRA AND ITS APPLICATIONS
                     Special Issue on
        LINEAR AND NONLINEAR MODELS AND ALGORITHMS IN
        INTENSITY-MODULATED RADIATION THERAPY (IMRT)

Call for Papers

Linear Algebra and its Applications (LAA) is pleased to announce a
special issue on "Linear and Nonlinear Models and Algorithms in
Intensity-Modulated Radiation Therapy (IMRT)".

IMRT is revolutionizing radiation therapy by putting at the disposal
of the medical profession powerful tools to deliver higher radiation
doses to tumors and lower radiation doses to critical organs in more
accurate ways. The scientific effort is a multidisciplinary one in
which radiation oncologists, other medical specialists, medical
physicists, mathematicians, computer scientists and engineers
collaborate to study many outstanding problems in treatment planning
and delivery. The goal is to merge this expertise and discover IMRT
solutions that can produce meaningful benefits to patients and
consistent results to practitioners. In view of the ever-increasing
role of mathematics, particularly linear algebra, optimization theory,
operations research, and other applied branches in IMRT, we look
forward to first-class original research submissions on all relevant
aspects of IMRT, including image-guided radiation therapy (IGRT) which
uses online imaging capabilities to reduce uncertainties in organ
localization and allows response to changes in treatment geometry over
time.

We welcome papers for the special issue within the entire scope of IMRT;
topics of interest include, but are not limited to:

        Algorithm engineering
        Aperture weight optimization
        Automated structure delineation
        Column-generation methods for large problem formulations
        Dose-volume constraints handling
        Gantry angle optimization
        Image-guided radiation therapy (IGRT)
        Large-scale matrix reduction and sparsing techniques
        Mathematical programming and operations research methods in IMRT
        Optimization of the segmentation process
        Rigid and deformable registration
        Sensitivity analysis for revised constraints or changed geometry
        Sampling techniques over constrained volumes
        Variance at risk methods for dose-volume modeling

The deadline for submission of papers is July 31, 2006. Papers should be
sent to any one of the four special editors, listed below, preferably PDF

files as attachments to e-mail, and will be subject to normal refereeing procedures according to LAA standards. Go to:
http://authors.elsevier.com/JournalDetail.html?PubID=522483&Precis=&popup=
and click on: "Guide for Authors" (but do not use the online submission for this special issue).

Yair Censor, D.Sc.
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ying.xiao@mail.tju.edu

The editor-in-chief responsible for this special issue is Hans Schneider.

Submitted by: Hans Schneider
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480 Lincoln Drive, Madison, WI 53706-1313 USA
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Math Dept Phone: 608-263-3054   Email: hans@math.wisc.edu
Math Dept Fax: 608-263-8891   http://www.math.wisc.edu/~hans

From: "Dr. Srivastava" <tanujfma@yahoo.com>
Subject: Int'l Journal Applied Mathematics & Statistics
Date: Tue, 4 Oct 2005

International Journal of Applied Mathematics & Statistics (IJAMAS)

CALL FOR PAPERS

Papers are invited for the International Journal of Applied Mathematics & Statistics (IJAMAS). The IJAMAS is a peer reviewed journal, published four times a year. The IJAMAS publishes refereed, well-written original research articles, and studies that describe the latest research and developments in the area of applied mathematics and statistics. This is a broad-based journal covering all branches of mathematics and statistics. It has also published interdisciplinary research. The areas of interest include but are not limited to:

    Approximation Theory
    Combinatorics
    Lattices, Algebraic Structures
    General Algebraic Systems
    Number Theory
    Field Theory and Polynomials

Rings and Algebras
Algebraic Geometry
Linear and Multilinear Algebra; Matrix Theory
Category Theory; Homological Algebra
Group Theory and Generalizations
Topological Groups,
Real Functions
Measure Theory and Integration
Functions of a Complex Variable
Potential Theory
Ordinary and Partial Differential Equations
Dynamical Systems and Ergodic Theory
Difference and Functional Equations
Fourier Analysis
Integral Equations
Coding Theory
Neutrosophic Mathematics
Graph Theory
Information Fusion
Functional Analysis

Image Processing, Signal Processing and Tomography
Discrete Mathematics
Fuzzy Mathematics
Operator Theory
Calculus of Variations
Control Theory
Cryptology, Geometry
Algebraic Topology
Mathematical Economics, Financial Mathematics and Econometrics
Statistics: Probability Theory, Stochastic Processes, Simulation,
          Parametric and Nonparametric Inference, Multivariate,
          Baysian Inference, Regression Analysis Estimation
          Theory, Decision Theory, Sampling Theory Etc.
Numerical Analysis
Fluid Mechanics and Solid Mechanics
Statistical Mechanics, Structure Of Matter
Operations Research, Optimization
Game Theory
Mathematical Biology and Other Natural Sciences
Wavelets and Wavelet Transforms
Mathematical Physics

Manuscripts can also be sent to the publisher via e-mail to
Editor-in-Chief . In accordance with usual practice, papers previously
published and are under consideration for publication elsewhere cannot
be accepted, and authors must agree not to publish accepted papers
elsewhere without the prior permission of IJAMAS. The paper should not
normally exceed 6000 words, and should conform to the following
format:

a. Cover page giving title, author(s), affiliation(s), mailing address
and e-mail address
b. Abstract describing the context and scope of the paper
c. Main text
d. References

All submission of manuscript should be written in English. All
contributions will be reviewed by at least two independent
experts. Upon acceptance of an article, the author(s) are assumed to

have transferred the copyright of the article to the IJAMAS. This transfer will ensure the widest possible dissemination of information. Detailed instructions on how to prepare your manuscript are available at "Instructions for Author".

Visit us for Details: http://www.geocities.com/ceser_info/ijams.html

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http://www.gallup.unm.edu/~smarandache/eBooks-otherformats.htm

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From: "magrijn-secretary support" <magrijn.secsup@tip.nl>
Subject: Mathematics of Control, Signals, and Systems
Date: Tue, 11 Oct 2005

Mathematics of Control, Signals, and Systems   2005 Vol. 17, No. 3
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Information:
The tables of contents of MCSS and the .pdf files
of its papers are available from the publisher Springer at:
    http://link.springer.de/link/service/journals/00498/index.htm

Information on MCSS is available also at the Editors' home
pages:
      www.cwi.nl/~schuppen/mcss/mcss.html
      www.math.rutgers.edu/~sontag/mcss.html

Address for submissions by email or regular mail:

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Email mcss@cwi.nl

Eduardo Sontag and Jan van Schuppen (Editors)

Submitted by: Corry Magrijn (Secretary)
for Jan H. van Schuppen (Editor-in-Chief MCSS)

From: Hans Schneider <hans@math.wisc.edu>
Subject: LAA contents
Date: Sat, 22 Oct 2005

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Tenth Special Issue (Part 2) on Linear Algebra and Statistics
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Charles R. Johnson, Stefan Leichenauer, Peter McNamara and Roberto Costas

This issue and all other issues of LAA are now available from ScienceDirect
(http://www.sciencedirect.com/) as are about 100 accepted articles in press.

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------- end -------

Today's Editor: Patricia K. Lamm
                Michigan State University

Today's Topics:
     Minicourse on Applied Inverse Problems
     Conference on Applications of Electrical Impedance Tomography
     International Symposium on Process Tomography
     Journal, Meeting, Books on Inverse Problems from Taylor & Francis
     Special Issue on Joint Spectral Radius (LAA)
     Table of Contents: Inverse Problems
     Table of Contents: Inverse Problems in Science and Engineering
     Table of Contents: Mathematics of Control, Signals, and Systems
     Table of Contents: Nonlinear Analysis, Modelling and Control
     Table of Contents: Linear Algebra and Its Applications

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From: "aip" <aip@server2.fi.iac.cnr.it>
Subject: Minicourse announcement
Date: Tue, 6 Dec 2005

            Minicourse on Applied Inverse Problems
                  Villa Finaly, Firenze
                    May 22-26, 2006

The minicourse will take place in a XIV century villa on the hills
surrounding Firenze and will be especially devoted to young
researchers focusing in Inverse Problems.

The minicourse will consist of the following three cycles of
lectures of 5 hours each:

Gen Nakamura (Hokkaido University),
  "Methods of reconstruction for identifying the discontinuity of a
medium",

Gunther Uhlmann (University of Washington),
  "Travel Time Tomography",

Michael Vogelius (Rutgers University),
  "Effective Electromagnetic Imaging of low Volume Fraction
Inhomogeneities".

No registration fee is due, lunches at Villa Finally are provided by
the organization. Villa Finaly offers a limited number of
accomodations. Partecipation is limited to 30 partecipants, and the
deadline to register is March 31st, 2006. For the registration,
please send a message to aip@fi.iac.cnr.it.

Few contributions for local expenses may be available on request.

More information on the minicourse will be posted on the web page

http://www.fi.iac.cnr.it/aip2006.html.

The organizing committee:
Elena Beretta
Elisa Francini
Gabriele Inglese
Sergio Vessella

From: Bill Lionheart <bill.lionheart@manchester.ac.uk>
Subject: Conference on Applications of Electrical Impedance Tomography
Date: Tue, 13 Dec 2005

Announcing:
    The 7th Conference on Biomedical Applications
        of Electrical Impedance Tomography (EIT)
    August 27 - September 1, 2006,
    Seoul, Korea.

Following the tradition of the EIT conference, topics will be limited to
biomedical EIT including the following subjects:
 - Reconstruction algorithms
 - Instrumentation
 - Clinical applications
 - New developments including MREIT and MIT

Details on http://www.wc2006-seoul.org/joint/joint01.htm
Organized by Jin Keun Seo (seoj@yonsei.ac.kr), Yonsei University,
Korea and Eung Je Woo (ejwoo@khu.ac.kr), Kyung Hee University, Korea.

Item submitted by: Professor Bill Lionheart
School of Mathematics, University of Manchester
http://www.ma.umist.ac.uk/bl

From: Bill Lionheart <bill.lionheart@manchester.ac.uk>
Subject: Symposium on Process Tomography
Date: Tue, 13 Dec 2005

Announcing:
      The 4th International Symposium on Process Tomography
      Warsaw, Poland
      September 14-15, 2006

The symposium is organized by the Institute of Radioelectronics at the
Warsaw University of Technology. The deadlines are 1st of February
2006 for abstracts and 1st of June 2006 for full texts. Further
information, application form and contact to organizers can be found
on symposium web site or via email:
    Web site: http://www.proctom2006.ire.pw.edu.pl
    Email: proctom2006@ire.pw.edu.pl.

Organizers:

Andrzej Plaskowski
Tomasz Dyakowski
Dominik Sankowski
Roman Szabatin

Item submitted by: Professor Bill Lionheart

School of Mathematics, University of Manchester
http://www.ma.umist.ac.uk/bl

From: Taylor & Francis <Journals@emarketing.tandf.co.uk>
Subject: Journal, Meeting, Books on Inverse Problems from Taylor &
Francis
Date: Wed, 23 Nov 2005

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The III European Conference on Computational Mechanics will
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"Inverse Engineering" has been confirmed and will be organised
by the Editor-in-Chief: G. S. Dulikravich of Inverse Problems
in Science and Engineering.
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LINEAR ALGEBRA AND ITS APPLICATIONS
Special issue on the JOINT SPECTRAL RADIUS
Call for papers

The joint spectral radius is a measure of the maximal growth of
products of matrices taken from a set. Fuelled by applications in many
areas there has been intensive research on this topic over the last
two decades. This special issue aims to highlight the advances that
have been achieved in recent times and to generate a state of the art
account of the developments in algebraic and analytic theory of the
joint spectral radius, computational aspects and application areas.

Theoretical developments in the area have used methods from diverse
mathematical fields. Computational complexity theory has been used to
show that in general the joint spectral radius is hard to determine,
while convex analysis lies at the foundation of many results obtained
on analytic properties, and methods from ergodic theory can be used to
characterize the continuous time version of the joint spectral radius
in the framework of stochastic dynamical systems. In order to make
the broad scope of methods visible we encourage submissions from all
areas that have an impact on the understanding of the joint spectral
radius ranging from matrix analysis, numerical analysis, algebraic
theory of matrix semigroups, computational complexity theory,
stability theory of switched linear systems, spectral theory of
semigroups of matrices.

We note that depending on the authors the joint spectral radius is also known as the maximal Lyapunov exponent or Lyapunov indicator, the Bohl exponent or the exponential growth rate and we encourage the submission of papers that create links to fields where notions similar to the joint spectral radius are studied, e.g. papers on continuous time versions of the joint spectral radius and extensions to infinite dimensions.

The joint spectral radius has found numerous applications in diverse areas; e.g. it has been used in coding theory to express the capacity of certain channels, in the stability analysis of consensus algorithms, to quantify the smoothness of wavelets obtained via dilation equations, in combinatorial number theory, in probability to analyze the distributions of random power series, in stability analysis of switched linear systems, in approximation theory to verify the convergence of subdivision algorithms,and in the theory of fractals and attractors. We particularly invite papers that explore applications in these or other areas.

All papers submitted must meet the publication standards of Linear Algebra and its Applications and will be refereed in the usual way. They should be submitted to one of the special editors of this issue listed below by 31 August 2006. Submission via email by sending a ps or pdf file is encouraged.

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From: Liz Martin <liz.Martin@iop.org>
Subject: Contents, Inverse Problems, volume 21, issue 6, December 2005
Date: Thu, 24 Nov 2005

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Regularization in Hilbert scales under general smoothing conditions
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On inverse spectral theory for singularly perturbed operators: point
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On the inverse problem of constructing symmetric pentadiagonal
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Y Matsuno

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From: "jamesverebeck" <jamesverebeck@comcast.net>
Subject: Contents, Inverse Problems in Science & Engineering
Date: Wed, 30 Nov 2005

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Inverse airfoil design by using an accelerated genetic algorithm via
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Iteratively adaptive regularization in inverse modeling with Bayesian
outlook - application on geophysical data   I. G. Roy

Inverse problem in Lagrangian dynamics: special solutions for
potentials possessing families of regular orbits on a given surface
A. Kotoulas

From: "magrijn-secretary support" <magrijn.secsup@tip.nl>
Subject: Contents, Mathematics of Control, Signals, and Systems
Date: Mon, 14 Nov 2005

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Dr. Romas Baronas, Journal Secretary,
Nonlinear Analysis: Modelling and Control,
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From: Hans Schneider <hans@math.wisc.edu>
Subject: Contents, Linear Algebra and its Applications
Date: Wed, 9 Nov 2005

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On approximately simultaneously diagonalizable matrices
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http://www.sciencedirect.com/science/issue/5653-2006-995879998-609920

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Takayuki Furuta

Real matrix homotopies based on Householder reflections
Stephen E. Wright

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