IPNet Digest Volume 29, Number 13 October 7, 2022

Today's Editor: Patricia (Patti) K. Lamm, Michigan State University

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Yiqiu Dong <yido@dtu.dk>
Sent: Monday, September 26, 2022
Subject: Postdoc Positions on Synergies between Tomography and Fusion Plasma, DTU, Denmark

Postdoc Positions on Synergies between Tomography and Fusion Plasma, DTU, Denmark

The Technical University of Denmark has an opening for two 2-year Postdoc positions. The positions are part of the research project “Tomography of Alpha Particles in Fusion Plasma (TAPP)”. The goal of the TAPP projects is to exploit and further develop the novel tomographic reconstruction methods to explain new physics of the energetic alpha particles by using comprehensive data from the fusion device through velocity-space tomography.

Two positions will be hired at either DTU Compute or DTU Physics. The candidate must have either a solid background in inverse problems or deep understanding on the physics of fusion plasmas.

For more details and to apply:
https://www.dtu.dk/english/about/job-and-career/vacant-positions/job?id=235a4c72-c548-4195-8314-41217d478d40

The deadline of applications is 22 October 2022 at 23:59 (Danish time).

Submitted by: Yiqiu Dong
DTU Compute, Technical University of Denmark, Denmark

From: Kui Ren <kr2002@columbia.edu>
Sent: Thursday, September 22, 2022
Subject: Limited-Term Assistant Professor in Applied Mathematics at Columbia

University

Limited-Term Assistant Professor in Applied Mathematics at Columbia University

The Department of Applied Physics and Applied Mathematics (APAM) at Columbia University in the City of New York invites applications for a limited term Assistant Professor faculty position in the area of applied and computational mathematics. The position begins July 1, 2023 for a term of 3 years. Salary is competitive and the teaching load is relatively light. Basic responsibilities focus on teaching, research and service.

A recent PhD earned in the last 3 years and no later than the start date of the appointment, and extraordinary promise in research, are both required. A broad array of research groups is active in the department, with current research encompassing applied and computational mathematics, and their application to many areas of physics, materials science, biology, earth science, as well as imaging and data science.

There is a strong cohort of activities on applied and computational mathematics within the Fu Foundation School of Engineering and Applied Sciences and the affiliated Data Science Institute. The Department is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community.

Applications must include: (a) curriculum vitae (b) statement of research, (c) statement of teaching, and (d) at least three letters of recommendation.

Candidate must also apply through: http://apply.interfolio.com/114046

Applications received by November 7, 2022 will be given full consideration. For questions concerning the position, please email apam@columbia.edu

Applicants are encouraged to consult http://appliedmath.apam.columbia.edu for more information about the applied mathematics program,
and https://apam.columbia.edu/ for more information about the department.

Columbia University is an Affirmative Action/Equal Opportunity Employer.

Columbia University is an Equal Opportunity/Affirmative Action employer -- Race/Gender/Disability/Veteran

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From: Shiqian Ma <sqma@rice.edu>
Sent: Sunday, October 2, 2022
Subject: Tenure-Track Faculty Positions in Department of Computational Applied Mathematics and Operations Research at Rice University

The Department of Computational Applied Mathematics and Operations Research (CMOR) at Rice University in Houston, Texas, seeks outstanding candidates for two positions aligned with its expansion in computational and applied

mathematics. We envision the candidates to work in the broad area of computational and applied mathematics, in application areas such as medicine, energy, data science, molecular nanotechnology, materials & quantum physics, quantum computing, aerospace, and others (https://engineering.rice.edu/research-faculty/research-focus-areas). We expect to hire both positions at the rank of tenure-track assistant professor; however, we will consider exceptional candidates at the rank of associate professor.

For more information, please visit https://apply.interfolio.com/112731

Submitted by:
Shiqian Ma
Computational Applied Math & Operations Research
Rice University
and Dept. of Math, UC Davis (on leave)
https://sqma.rice.edu/

From: Elmlund, Hans (NIH/NCI) [E] <hans.elmlund@nih.gov>
Sent: Monday, October 3, 2022
Subject: Career opportunities for mathematically inclined researchers @ NIH

Dear All,

The Biological Computing Section (BCS) group develops algorithmic solutions to address the increasing demands for quantitative and computational approaches in electron microscopy, integrative structural biology, and materials science. We are looking to recruit candidates that have substantial documented expertise in software development in quantitative science areas (preferably mathematics, computer science, physics, statistics, engineering, materials science, theoretical chemistry, medical imaging, or bioinformatics); that have demonstrated experience of working in interdisciplinary environments to solve difficult computational problems and possess problem solving skills that are transferrable to the development of structural methodologies that can make a significant impact on biomedical and materials research world-wide. Currently, we have two positions two fill. One training post (postdoctoral):

https://ccr.cancer.gov/careers/post-doctoral-fellow-electron-microscopy-image-processing-algorithm-development/24314

and one more senior (staff scientist) post:

https://www.training.nih.gov/jobs/view/_10/10004/SS_09232022

If you or your friends are interested in using your mathematical prowess to contribute to developing image processing algorithms for biomedical research, please apply, or contact me (hans.elmlund@nih.gov) if you have questions.

Sincerely,

HANS ELMLUND PhD
Senior Investigator

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From: noreply@iopscience.org
Date: October 5, 2022
Subject: Inverse Problems, Volume 38, Numbers 7, 9

Inverse Problems July 2022 Volume 38, Number 7

Special Issue Article:

Analysis of the inverse Born series: an approach through geometric function theory
Jeremy G Hoskins and John C Schotland

Papers

A stability result for the identification of a permeability parameter on Navier–Stokes equations
Jorge Aguayo and Axel Osses

A stochastic gradient descent approach with partitioned-truncated singular value decomposition for large-scale inverse problems of magnetic modulus data
Wenbin Li, Kangzhi Wang and Tingting Fan

Imaging conductivity from current density magnitude using neural networks*
Bangti Jin, Xiyao Li and Xiliang Lu

Determining damping terms in fractional wave equations
Barbara Kaltenbacher and William Rundell

Parameter identification for elliptic boundary value problems: an abstract framework and applications
Heiko Hoffmann, Anne Wald and Tram Thi Ngoc Nguyen

Task adapted reconstruction for inverse problems
Jonas Adler, Sebastian Lunz, Olivier Verdier, Carola-Bibiane Schönlieb and Ozan Öktem

https://iopscience.iop.org/issue/0266-5611/38/7

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