

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

Today's Topics:

Project Assistant: Parameter ID and Machine Learning Approaches, U. Graz

Faculty Positions: Data Science including Inverse Problems, Purdue U.

Postdoc: Data Science including High-Dimensional Inverse Problems, BNL

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

<http://ipnet.math.msu.edu>

From: "Peinhart, Vanessa (vanessa.peinhart@uni-graz.at)" <vanessa.peinhart@uni-graz.at>

Date: Thursday, December 17, 2020

Subject: Job offer University of Graz / Institut of Mathematics and Scientific Computing

Please find attached the job advertisement "Project Assistant without doctorate" (30 hours a week; fixed-term employment for the period of 3 years; position to be filled as of now). We would like to ask you to forward it in particular to potential applicants in your field of activity.

<https://jobs.uni-graz.at/en/MB/203-1/99/6536>

Application Deadline: January 13th 2021

The University of Graz strives to increase the proportion of women and therefore explicitly encourages qualified women to apply. In case of equal qualifications, women are given priority in the application process.

Submitted by:

Mag. Vanessa Peinhart

Karl-Franzens-Universität Graz Institut für Mathematik und Wissenschaftliches

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From: David Gleich dgleich@purdue.edu [via NADIGEST]

Date: December 18, 2020

Subject: Faculty Positions, Data Science, Purdue Univ

Purdue University has multiple faculty position openings for the broad area of data science within the computer science, statistics, and mathematics departments.

To learn more about these opportunities and apply:

[https://urldefense.com/v3/__https://www.cs.purdue.edu/hiring/faculty2020-datascience.html__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gDAh7Bny\\$](https://urldefense.com/v3/__https://www.cs.purdue.edu/hiring/faculty2020-datascience.html__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gDAh7Bny$)

[https://urldefense.com/v3/__https://careers.purdue.edu/job/Data-Science/698638500/__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gEFx0Lls\\$](https://urldefense.com/v3/__https://careers.purdue.edu/job/Data-Science/698638500/__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gEFx0Lls$)

[https://urldefense.com/v3/__https://www.mathjobs.org/jobs/list/16902__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gLlxq5wx\\$](https://urldefense.com/v3/__https://www.mathjobs.org/jobs/list/16902__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gLlxq5wx$)

This broad view of data science includes many topics relevant to [IPNet Digest] readers:

Scientific machine learning, data-driven modeling, topological data analysis, functional data analysis, applied probability, approximation theory for the foundation of data science, machine learning, simulation, inverse problems, computational methods for big data, optimization, high performance computing for data science, topological and geometric aspects of data analysis, software engineering for data science

We suggest candidates apply to all of these positions that may be relevant.

From: Vanessa Lopez-Marrero vlopezmar@bnl.gov [via NADIGEST]

Date: December 18, 2020

Subject: Postdoc Fellowship Position, Applied Math/Scientific Computing, BNL

The Applied Mathematics Group of the Computational Science Initiative (CSI) at Brookhaven National Laboratory (BNL) invites exceptional candidates to apply for the Amalie Emmy Noether Fellowship in applied mathematics and scientific computing. This fellowship offers a unique opportunity to conduct research in a broad set of fields, including reduced order modeling, uncertainty quantification and scalable computational statistics for Bayesian inference, optimization and control for decision making under uncertainty, scientific machine learning, high-dimensional inverse problems, multiscale modeling, integrated computational modeling frameworks, data science for streaming or "in-situ" (within simulation) analytics in high performance computing (HPC), and numerical methods. The methods and fundamental advances made in the course of this research will further the progress of applications of interest to BNL and the Department of Energy (DOE).

This program provides full support for a period of two years at CSI. Candidates must have received a doctorate (Ph.D.) in applied mathematics or a related field (e.g., mathematics, physics, engineering, statistics, operations research, or computer science) within the past five years. This fellowship presents a unique chance to conduct interdisciplinary collaborative research in BNL programs with a strongly competitive salary. Recipients will be allowed to select a direct mentor from a list of CSI staff scientists. This mentor will help the recipient define and pursue their own research agenda during their appointment.

For a full description of the position and to apply, please visit

[https://urldefense.com/v3/__https://jobs.bnl.gov/job/upton/post-doc-applied-math-scientific-__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gHnImewu\\$computing/3437/3147419072](https://urldefense.com/v3/__https://jobs.bnl.gov/job/upton/post-doc-applied-math-scientific-__;!!HXCxUKc!nDtbWEnWydTvPSAqS9GLjcI5Vx5w98WHNqZShzpF7v8hg7ecqDQxk-B0gHnImewu$computing/3437/3147419072)

From: Recruitment BCAM idiaz@bcamath.org [via NADIGEST]
Date: December 22, 2020
Subject: Postdoc Positions, BCAM

The Basque Center for Applied Mathematics (BCAM) has published the call for BCAM Severo Ochoa Joint Postdoctoral Program. The call offers up to 6 Postdoctoral Fellow positions in the following areas:

- Mathematical, Computational and Experimental Neuroscience: the research lines of Applied Analysis and Mathematical, Computational and Experimental Neuroscience offer this position in the topics of applied mathematics to characterise the interaction (from microscale to macroscale) between special states of water (e.g. formation of crystal structures) and biological tissue.
- Analysis of Partial Differential Equations: the research lines of Harmonic Analysis and Linear and Non-Linear Waves offer this position in the following topics: PDEs from fluid dynamics and electromagnetism, Inverse problems and Dispersive PDEs.
- Analysis of Partial Differential Equations: the research lines of Harmonic Analysis and Linear and Non-Linear Waves offer this position in the following topics: Discrete Harmonic Analysis and PDEs and Fourier Analysis and PDEs on the infinite-dimensional torus. Quantum Neuroscience: the research lines of The Quantum Mechanics group (Math. Phys.) and Mathematical, Computational and Experimental Neuroscience offers this position in the study of quantum effects on nanoscale biological systems. Specifically, the position will focus on the study of electrical conduction in peptides that control ion channels in neurons.
- CFD Modelling and Simulation: the research lines of Statistical Physics and CFD Modelling and Simulation offer this position in the following topic: Investigation of Anomalous Diffusion in Hydrodynamics Via the Smoothed Dissipative Particle Dynamics Method.
- Computational Fluid Dynamics - Modelling and Simulation and Applied Statistics: a position in the following topics: Pedestrian Flow Dynamics, Particle-based simulation, Agent Based Simulation, Data Assimilation.

The programme is open to students of any nationality. The duration of the contracts will be 1 year. Requirements: Applicants must have their PhD completed before the contract starts. PhD degree related to the subject of each offer.

APPLICATION DEADLINE: 7TH JANUARY 2021

APPLY AT:

[https://urldefense.com/v3/__http://www.bcamath.org/en/research/job__;!!HXCxUKc!
iX3AZtdvXsXrdZHtnTM6FliKdQV4_6zbc9NkLkMfBy31c8_xHBAvpsS5q05F0nMN\\$](https://urldefense.com/v3/__http://www.bcamath.org/en/research/job__;!!HXCxUKc!iX3AZtdvXsXrdZHtnTM6FliKdQV4_6zbc9NkLkMfBy31c8_xHBAvpsS5q05F0nMN$)

From: noreply@iopscience.org
Subject: Inverse Problems, Volume 36, Numbers 11-12, Nov-Dec 2020

Date: December 9, 2020

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<https://iopscience.iop.org/issue/0266-5611/36/11>

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