

Weekly newsLetter in Statistical Physics: conferences, academic jobs and post-doc positions

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**CONFERENCES**

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**Brain Criticality Virtual Meeting October 6 – 9 2020, <https://braincriticality.org/>**

This meeting intends to gather recent contributions in the field of systems neuroscience, with the purpose of further discussing the role of criticality and its implications in the dynamics of large neuronal populations, functional and structural connectivity, development and learning, robustness of system operation. Recent advances in selective recording and perturbation approaches involving large populations of neurons offer unique opportunities to test these predictions, challenge current interpretations of large data sets and trigger novel theoretical developments. The meeting will take place virtually. Registration is free but limited and allows interactively participating to discussions and submitting contributed abstracts. A free live streaming will also be offered. Deadline for registration is October 2nd, 2020 Abstracts submitted before Sunday September 27th will be considered for spotlight oral presentation. Remaining abstracts will be presented as virtual posters. Organizers: D. Plenz, L. de Arcangelis, D. Chialvo, D. Battaglia.

From: Lucilla De Arcangelis <[Lucilla.Dearcangelis@unicampania.it](mailto:Lucilla.Dearcangelis@unicampania.it)>

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**POST-DOC POSITIONS**

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**Postdoctoral position at the Laboratory of Statistical Biophysics at EPFL (Lausanne, Switzerland)**

The postdoc will drive the modeling of the non-equilibrium formation and maintenance of membrane-less intracellular organelles (aka intracellular liquid-liquid phase transitions) by energy-consuming molecular machines. Analytical and computational approaches at the mesoscale (no molecular details) will be used, in close collaboration with experimentalists and with molecular level computational biologists. Candidates should have a keen interest in biological physics, statistical physics and biology. Starting date: December 1, 2020 at the earliest, early 2021 is also possible. <https://recruiting.epfl.ch/Vacancies/1466/Description/2>

From: Paolo De Los Rios <[paolo.delosrios@epfl.ch](mailto:paolo.delosrios@epfl.ch)>

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**Multiple postdoc positions in computational modeling of biomolecular self-assembly in the formation of membraneless organelles at Lehigh University, USA**

The projects involve developing and applying coarse-grained and all-atom simulation models to study the role of liquid-liquid phase separation of proteins and nucleic acids in the functional and disease-associated biological processes such as the formation of heterochromatin, TDP-43 and FUS assembly/aggregation, etc. Researchers interested in more fundamental polymer physics aspects, including theory, are also encouraged to apply.

From: Jeetain Mittal <[jem309@lehigh.edu](mailto:jem309@lehigh.edu)>

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**Postdoctoral position in Particle transport in Turbulence,  
in Ecole Centrale de Lyon, France**

The postdoctoral researcher will carry out a program focused on the identification of the mechanisms of collision between spheroidal particles settling in turbulence, with applications to cloud microphysics. He/she will more specifically analyze by direct numerical simulation the detailed dynamics and distribution of particles in the flow. Candidates should have a solid knowledge in hydrodynamic turbulence and/or particle transport in a fluid. Previous experience in numerical methods of spectral type and/or to parallel computing will be highly appreciated.

<https://emploi.cnrs.fr/Offres/CDD/UMR5509-AURNAS-002/Default.aspx?lang=EN>

From: Aurore Naso <[aurore.naso@ec-lyon.fr](mailto:aurore.naso@ec-lyon.fr)>

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**Postdoctoral Fellowship Opportunity in wave propagation in complex  
systems at Queens College and The Graduate Center of the City University  
of New York (CUNY) in the group of Azriel Genack**

The research centers on fundamental and applied aspects of wave propagation through random media and topological insulators. Applications involve ultrasensitive detection of structural change and medical imaging. The research activity will involve some of the following: computer simulations, theoretical methods such as random matrix theory, and microwave and optical measurements.

<http://rfcuny.org/> click on about, then search and apply

From: Azriel Z Genack <[Azriel.Genack@qc.cuny.edu](mailto:Azriel.Genack@qc.cuny.edu)>

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**MISCELLANEOUS**

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