Monday, September 17, Institute for Condensed Matter Theory Seminar: “Quantum Hall Ferromagnetism to Bilayer Graphene” Ganpath Murthy; 12:00 pm in 190 ESB

Tuesday, September 18, Astronomy Colloquium: “Detecting Low Frequency Gravitational Waves with Pulsar Timing Arrays” Dr. Sarah Vigeland; 3:45 pm in 134 Astronomy

Wednesday, September 18, Astrophysics, Gravitation, and Cosmology Seminar: “Tests of the Kerr-Hypothesis with X-Ray Observations of Mass Accreting Black Holes” Henric Krawczynski; 12:00 pm in 464 Loomis

Wednesday, September 18, Physics Colloquium: “University of Complex Electronic Pattern Formation in Correlated Oxides” Erica Carlson; 4:00 pm in 141 Loomis

Visitors:

---

Job Opportunity

Tenured/Tenure-Track Faculty Positions in Artificial Intelligence and Machine Learning at Rensselaer

https://rpijobs.rpi.edu/postings/6917

Rensselaer is creating a research cluster in the area of Artificial Intelligence (AI) and Machine Learning (ML). We seek applications from outstanding candidates at all ranks (assistant, associate, and full professor) who will build upon our existing strengths in these and related areas across the Schools of Science, Engineering, Humanities, Arts and Social Sciences, Management, and Architecture. These faculty members can have academic appointments in any of the five Schools at Rensselaer depending on the candidate’s background, interests, and the potential for collaboration.

Candidates with strong physics background and AI/ML expertise and applications in any sub fields of Physics are encouraged to apply.

Possible application areas include (but not limited to) statistical mechanics, condensed matter, network science, social and infrastructure networks, or complex systems.

Interested applicants should contact:
Prof. Vincent Meunier
Head, Physics Department
Rensselaer Polytechnic Institute
Department of Physics, Applied Physics, and Astronomy
110 8th Street
Troy, NY 12180-3590
meuniv@rpi.edu
CALENDAR OF EVENTS http://physics.illinois.edu/bluesheet.asp

Monday, September 17, Institute for Condensed Matter Theory Seminar: “Quantum Hall Ferromagnetism to Bilayer Graphene” Ganpath Murthy; 12:00 pm in 190 ESB

Tuesday, September 18, Astronomy Colloquium: “Detecting Low Frequency Gravitational Waves with Pulsar Timing Arrays” Dr. Sarah Vigeland; 3:45 pm in 134 Astronomy

Wednesday, September 18, Astrophysics, Gravitation, and Cosmology Seminar: “Tests of the Kerr-Hypothesis with X-Ray Observations of Mass Accreting Black Holes” Henric Krawczynski; 12:00 pm in 464 Loomis

Wednesday, September 18, Physics Colloquium: “University of Complex Electronic Pattern Formation in Correlated Oxides” Erica Carlson; 4:00 pm in 141 Loomis

Visitors:

Job Opportunity

Tenured Faculty Position in Theoretical/Computational Soft Matter and/or Biological Physics

Position responsibilities:
Expectations for this position include: development of a vigorous, externally well-funded and internationally recognized research program; effective and enthusiastic instruction in physics and related fields; effective interaction with a diverse population of undergraduate and graduate students; active development of professional capabilities and scholarly activities; occasional travel, for example, to attend professional conferences and present research seminars; participation in department, academy, college, and university governance; and professional service. The faculty handbook (available at http://www.provost.vt.edu/) provides a complete description of faculty responsibilities at Virginia Tech. Questions regarding the position may be directed to the Chair of the Search Committee, Uwe C. Täuber, at smb_search@phys.vt.edu, phone: (540) 231-8998.

Required qualifications:
Applicants must hold a Ph.D. or equivalent in physics or a closely related field, and must have postdoctoral experience at the time of appointment. They should demonstrate a strong record of accomplishments and creativity in physics research; experience with and commitment to interdisciplinary research; vision, creativity, and leadership skills; a desire to advise and teach a student body which is diverse with respect to socio-economic status, interests, and abilities; and commitment / sensitivity to address issues of diversity in the university community.

Candidates should apply at http://listings.jobs.vt.edu/postings/TR0180104
CALENDAR OF EVENTS http://physics.illinois.edu/bluesheet.asp

Monday, September 17, Institute for Condensed Matter Theory Seminar:
“Quantum Hall Ferromagnetism to Bilayer Graphene” Ganpath Murthy; 12:00 pm in 190 ESB

Tuesday, September 18, Astronomy Colloquium: “Detecting Low Frequency Gravitational Waves with Pulsar Timing Arrays” Dr. Sarah Vigeland; 3:45 pm in 134 Astronomy

Wednesday, September 18, Astrophysics, Gravitation, and Cosmology Seminar: “Tests of the Kerr-Hypothesis with X-Ray Observations of Mass Accreting Black Holes” Henric Krawczynski; 12:00 pm in 464 Loomis

Wednesday, September 18, Physics Colloquium: “University of Complex Electronic Pattern Formation in Correlated Oxides” Erica Carlson; 4:00 pm in 141 Loomis

ICMT Seminar

Title: “Quantum Hall Ferromagnetism in Bilayer Graphene”

Speaker: Ganpathy Murthy, University of Kentucky

Date: Monday, September 17  Time/Location: 12:00 pm / 190 ESB

Abstract: The Sachdev-Ye-Kitaev (SYK) models provide solvable realizations of diffusive metallic states without quasiparticle excitations. Explicit holographic duals of the SYK models can be constructed, in terms of black holes with a near-horizon AdS2 geometry. I will also compare the SYK models with more realistic models of the strange metals in the cuprates. A common thread between these models is the remarkable connection between many-body quantum chaos and diffusive thermal transport in states of quantum matter without quasiparticle excitations.
Monday, September 17, Institute for Condensed Matter Theory Seminar: “Quantum Hall Ferromagnetism to Bilayer Graphene” Ganpath Murthy; 12:00 pm in 190 ESB

Tuesday, September 18, Astronomy Colloquium: “Detecting Low Frequency Gravitational Waves with Pulsar Timing Arrays” Dr. Sarah Vigeland; 3:45 pm in 134 Astronomy

Wednesday, September 18, Astrophysics, Gravitation, and Cosmology Seminar: “Tests of the Kerr-Hypothesis with X-Ray Observations of Mass Accreting Black Holes” Henric Krawczynski; 12:00 pm in 464 Loomis

Wednesday, September 18, Physics Colloquium: “University of Complex Electronic Pattern Formation in Correlated Oxides” Erica Carlson; 4:00 pm in 141 Loomis

Title: “Detecting Low-Frequency Gravitational Waves with Pulsar Timing Arrays”

Speaker: Dr. Sarah Vigeland (University of Wisconsin, Milwaukee)

Date: Tuesday, September 18

Time/Location: 3:45 pm / 134 Astronomy

Abstract:
Astrophysics, Gravitation and Cosmology Seminar

Title: “Tests of the Kerr-Hypothesis with X-Ray Observations of Mass Accreting Black Holes”

Speaker: Henric Krawczynski (Washington University at St. Louis)

Date: Wednesday, September 19

Time/Location: 12:00 pm / 464 Loomis

Abstract:
Monday, September 17, Institute for Condensed Matter Theory Seminar: “Quantum Hall Ferromagnetism to Bilayer Graphene” Ganpath Murthy; 12:00 pm in 190 ESB

Tuesday, September 18, Astronomy Colloquium: “Detecting Low Frequency Gravitational Waves with Pulsar Timing Arrays” Dr. Sarah Vigeland; 3:45 pm in 134 Astronomy

Wednesday, September 18, Astrophysics, Gravitation, and Cosmology Seminar: “Tests of the Kerr-Hypothesis with X-Ray Observations of Mass Accreting Black Holes” Henric Krawczynski; 12:00 pm in 464 Loomis

Wednesday, September 18, Physics Colloquium: “University of Complex Electronic Pattern Formation in Correlated Oxides” Erica Carlson; 4:00 pm in 141 Loomis

---

**Physics Colloquium**

**Title:** “Universality of Complex Electronic Pattern Formation in Correlated Oxides”

**Speaker:** Erica Carlson (Department of Physics and Astronomy)

**Date:** Wednesday, September 19

**Time/Location:** 4:00 pm / 141 Loomis

**Abstract:**