ICMT Seminar

Title: “Classification of 3D Symmetry-Enriched Topological Phases”

Speaker: Dr. Peng Ye, University of Illinois

Date: Monday, April 2  Time/Location: 12:00 pm / 190 ESB

Abstract: In this talk, I will introduce the strategy to classification of 3D (three spatial dimension) symmetry-enriched topological phases (SET). Especially, in order to classify 3D SETs with Abelian gauge group and Abelian symmetry group, I will introduce the two sets of data: 3D braiding statistics (i.e., topological order) and symmetry enrichment, through topological field theoretical approach and thought experiments. Related reference: 1801.01638, see also: 1610.08645, 1609.00985, 1508.05689.

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Monday, April 2, Thesis Defense: “Machine Learning Methods Based on Diffusion Processes” Chenchao Zhao; 12:00 pm in 276 Loomis

Monday, April 2, High Energy/ Medium Energy Physics Seminar: “Exploring Proton Structure with Drell-Yan Scattering” Matthias Grosse; 1:00 pm in 464 Loomis

Monday, April 2, Theoretical and Computational Strategies: Professor Gerd Bruno Rocha; 3:00 pm in 3269 Beckman

Tuesday, April 3, Thesis Defense: “Statistical Analysis and Modeling of Nucleosome Positioning” Hu Jin; 1:00 pm in 464 Loomis

Tuesday, April 3, Astronomy Colloquium: “Updates on the Large Synoptic Survey Telescope” Hsin-Fang Chiang; 3:45 pm in 134 Astronomy

Wednesday, April 4, Astrophysics, Gravitation and Cosmology Seminar: “Steering the rise of Artificial Intelligence with Numerical Relativity” Numerous Speakers; 12:00 pm in 464 Loomis

Wednesday, April 4, Thesis Defense: “direct Search for Exotic Spin Zero Particles in the Di-Lepton Final State of Higgs-Z Associated Production” Andrew Ferrante; 2:00 pm in 464 Loomis

Wednesday, April 4, Physics Colloquium: “Catching and Reversing a Quantum Jump Mid-Flight” Michel Devoret; 4:00 pm in 141 Loomis

Visitors:
CALENDAR OF EVENTS http://physics.illinois.edu/bluesheet.asp

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Title: “Machine Learning Methods Based on Diffusion Processes”

Speaker: Chenchao Zhao

Date: Monday, April 2

Time/Location: 12:00 pm / 276 Loomis
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Visitors: High Energy/ Medium Energy Seminar

Title: “Exploring Proton Structure with Drell-Yan Scattering”

Speaker: Matthias Grosse Perdekamp (University of Illinois)

Date: Monday, April 2  Time/Location: 1:00pm / 464 Loomis

Abstract: See here https://physics.illinois.edu/calendar/event/4/2/2018/33303150
**Theoretical and Computational Strategies to Apply Quantum Chemistry Methods**

**Title:** “in Biomolecular Modeling”

**Speaker:** Professor Gerd Bruno Rocha (University of Illinois at Urbana-Champaign)

**Date:** Monday, April 2

**Time/Location:** 3-4:00 pm / 3269 Beckman

**Abstract:** See here

https://physics.illinois.edu/calendar/event/4/2/2018/33302990
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Title: “Statistical analysis and modeling of nucleosome positioning”

Speaker: Hu Jin

Date: Monday, April 3

Time/Location: 1:00 pm / 464 Loomis
Astronomy Colloquium

Title: “Updates on the Large Synoptic Survey Telescope”

Speaker: Hsin – Fang Chiang (NCSA)

Date: Tuesday, April 3

Time/Location: 3:45 pm / 134 Astronomy

Abstract: Large Synoptic Survey Telescope (LSST) is currently under construction and will start operations in 2022. A vast array of science will be enabled by a single deep-wide-fast survey, with about 10,000 square degrees of sky imaged every three nights. Over its 10 year survey lifetime, > 0.5 Exabytes of data will be produced with no proprietary period to any US scientific communities. Its data management system will span four key facilities: the Summit Facility on Cerro Pachón, Chile; the Base Facility in La Serena, Chile; the Data Processing and Archiving Facility at the National Center for Supercomputing Applications (NCSA) in Urbana-Champaign, IL; and the Satellite Processing Facility at CCFIN2P3 in Lyon, France. In this talk, I'll provide an overview and status update of the project, with the focus on the data management and NCSA's involvement. I'll also discuss ways to get involved with LSST.
Astrophysics, Gravitation and Cosmology Seminar

**Title:** “Steering the rise of Artificial Intelligence with Numerical Relativity”

**Speaker:** Pablo Brubeck, Vedant Puri, Shawn Rosofsky, Adam Rebei, Hongyu Shen

**Date:** Wednesday, April 4

**Time/Location:** 12:00 pm / 464 Loomis

**Abstract:** Numerical relativity informed and enabled the detection of gravitational waves. Artificial Intelligence is providing the means to address grand computational challenges across science domains. In this Symposium we showcase several catalyst efforts, led by the NCSA Gravity Group, to combine these two disparate fields of research to fully realize the potential for scientific discovery with multimessenger astronomy.
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**Title:** “Direct Search for Exotic Spin Zero Particles in the Di-Lepton Final State of Higgs-Z Associated Production”

**Speaker:** Andrew Ferrante

**Date:** Wednesday, April 4

**Time/Location:** 2:00 pm / 464 Loomis

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Visitors:
Title: “Catching and Reversing a Quantum Jump Mid-Flight“

Speaker: Michel Devoret (Yale University)

Date: Wednesday, April 4

Time/Location: 4:00 pm / 141 Loomis

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