

# **Chez Pierre Seminar Series**

by Condensed Matter Group

**Mondays at noon ET in the Duboc Seminar Room (4-331) unless otherwise stated.**

**Fall 2023**

**September 11, 2023**

**Speaker: Cenke Xu, UCSB**

**Title: “Topology and Quantum Criticality under Weak-Measurement or Decoherence”.**

**[https://physics.mit.edu/wp-content/uploads/2023/07/Cenke-Xu\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/07/Cenke-Xu_-Chez-Pierre_announcement-poster.pdf)**

**Host: Liang Fu**

**September 18, 2023**

**Speaker: Trithep Devakul, Stanford University**

**Title: “Graphene trilayer with a helical twist.”**

**[https://physics.mit.edu/wp-content/uploads/2023/08/Trithep-Devaku-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/08/Trithep-Devaku-Chez-Pierre_announcement-poster.pdf)**

**Host: Liang Fu**

**September 25, 2023**

**Speaker: Julia Mundy, Harvard University**

**Title: “Superconductivity in a layered square-planar nickelate”.**

**[https://physics.mit.edu/wp-content/uploads/2023/09/Julia-Mundy\\_Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/09/Julia-Mundy_Chez-Pierre_announcement-poster.pdf)**

**Host Riccardo Comin**

**October 2, 2023**

**Speaker: Zhi-Xun Shen, Stanford University**

**Title: “Surprises in the Phase Diagram – Electron Doped Cuprates“.**

**[https://physics.mit.edu/wp-content/uploads/2023/09/Zhi-Xun-Shen\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/09/Zhi-Xun-Shen_-Chez-Pierre_announcement-poster.pdf)**

**Host: Xiao-Gang Wen**

**October 2, 2023 (Special Chez Pierre seminar at 4pm)**

**Speaker: Dung-Hai Lee, UC Berkeley**

**Title: The physics of nodal spin triplet superconductivity: an application to UTe<sub>2</sub>”.**

**[https://physics.mit.edu/wp-content/uploads/2023/09/Dung-Hai-Lee\\_Chez-Pierre-Announcement-poster-example-template.pdf](https://physics.mit.edu/wp-content/uploads/2023/09/Dung-Hai-Lee_Chez-Pierre-Announcement-poster-example-template.pdf)**

**Host: Xiao-Gang Wen**

**October 4, 2023 (Special Chez Pierre seminar at 10am)**

**Speaker: Wenjin Zhao, Cornell University**

**Title: “Gate-tunable heavy fermions in a moiré Kondo lattice. ”**

**[https://physics.mit.edu/wp-content/uploads/2023/09/Wenjin-Zhao\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/09/Wenjin-Zhao_-Chez-Pierre_announcement-poster.pdf)**

**Host: Long Ju**

**October 9, 2023 (Holiday: Indigenous People’s Day. No Chez Pierre seminar)**

**October 16, 2023**

**Speaker: Lu Li, University of Michigan**

**Title: “Quantum Oscillations in Kondo Insulators and Mott Insulators”.**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Lu-Li\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Lu-Li_-Chez-Pierre_announcement-poster.pdf)**

**Host: Patrick Lee**

**October 17, 2023 (Special Chez Pierre seminar)**

**Speaker: Nandini Trivedi, The Ohio State University**

**Title: “Proposal to detect fractionalized excitations in quantum spin liquids”.**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Nandini-Trivedi\\_Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Nandini-Trivedi_Chez-Pierre_announcement-poster.pdf)**

**Host: Senthil Todadri**

**October 23, 2023**

**Speaker: Victor Brar, University of Wisconsin-Madison**

**Title: “Imaging charge carrier motion through multiple phase transitions in graphene.”**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Victor-Brar\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Victor-Brar_-Chez-Pierre_announcement-poster.pdf)**

**Host: Long Ju**

**October 30, 2023**

**Speaker: Shlomo Havlin, Bar-Ilan University**

**Title: “Interdependent Superconducting Networks”.**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Shlomo-Havlin\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Shlomo-Havlin_-Chez-Pierre_announcement-poster.pdf)**

**Host: Senthil Todadri**

**November 6, 2023**

**Speaker: Stevan Nadj-Perge, Caltech**

**Title: “Superconductivity and Strong Correlations in (un)-Twisted Graphene Multilayer Structures”.**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Stevan-Nadj-Perge-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Stevan-Nadj-Perge-Pierre_announcement-poster.pdf)**

**Host: Long Ju**

**November 10, 2023 (Special Chez Pierre Seminar, Friday)**

**Speaker: Kin Fai Mak, Cornell University**

**Title: " Thermodynamics and transport in a dipolar excitonic insulator"**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Kin-Fai-Mak\\_-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Kin-Fai-Mak_-Chez-Pierre_announcement-poster.pdf)**

**Host: Liang Fu**

**November 13, 2023**

**Speaker: Hsin Lin Institute of Physics, Academia Sinica (Taiwan)**

**Title: "Feature Spectrum Topology"**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Hsin-Lin-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Hsin-Lin-Chez-Pierre_announcement-poster.pdf)**

**Host: Liang Fu**

**November 20, 2023**

**Speaker: Fahad Mahmood, University of Illinois at Urbana Champaign**

**Title: "Coherent terahertz (THz) dynamics of collective excitations in a Weyl charge density wave".**

**[https://physics.mit.edu/wp-content/uploads/2023/11/Fahad-Mahmood-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/11/Fahad-Mahmood-Chez-Pierre_announcement-poster.pdf)**

**Host: Nuh Gedik**

**November 27, 2023**

**Speaker: Jun Zhu, Penn State University**

**Title: “Many-body ground states and collective excitations in a tunable 2D system”.**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Jun-Zhu-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Jun-Zhu-Chez-Pierre_announcement-poster.pdf)**

**Host: Xiao-Gang Wen**

**November 28, 2023 (Special Chez Pierre seminar)**

**Speaker: Cristian Batista, University of Tennessee, Knoxville (UTK)**

**Title: “Dynamical structure factor of the triangular Heisenberg model”**

**[https://physics.mit.edu/wp-content/uploads/2023/10/Cristian-Batista-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/10/Cristian-Batista-Chez-Pierre_announcement-poster.pdf)**

**Host: Liang Fu**

**November 29, 2023 (Special Chez Pierre seminar)**

**Speaker: Donna Sheng, California State University Northridge**

**Title: “Emerging D-Wave and Pairing Density Wave Superconductivity by Doping Square-Lattice Mott Insulators”**

**[https://physics.mit.edu/wp-content/uploads/2023/11/Donna-Sheng-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/11/Donna-Sheng-Chez-Pierre_announcement-poster.pdf)**

**Host: Liang Fu**

**December 1, 2023 (Special Chez Pierre seminar)**

**Speaker: Mohit Randeria, Ohio State University**

**Title: ” Are there Upper Bounds on the Superconducting  $T_c$ ?“**

[https://physics.mit.edu/wp-content/uploads/2023/11/Mohit-Randeria-Chez-Pierre\\_announcement-poster-1.pdf](https://physics.mit.edu/wp-content/uploads/2023/11/Mohit-Randeria-Chez-Pierre_announcement-poster-1.pdf)

Host: Liang Fu

December 4, 2023

Speaker: Leo Radzihovsky, University of Colorado at Boulder

Title: “Coulomb Universality”

[https://physics.mit.edu/wp-content/uploads/2023/11/Leo-Radzihovsky-Chez-Pierre\\_announcement-poster.pdf](https://physics.mit.edu/wp-content/uploads/2023/11/Leo-Radzihovsky-Chez-Pierre_announcement-poster.pdf)

Host: Liang Fu

December 11, 2023

Speaker: Mengkun Liu, Stony Brook

Title: “Why 10 nm is an interesting length scale?- A magneto nano-optics perspective”

<https://physics.mit.edu/wp-content/uploads/2023/11/Mengkun-Liu•Chez-Pierre-Announcement-poster-example-template.pdf>

Host: Long Ju