Yingying Peng

Professional Profile

Dr. Yingying Peng is a tenured associate professor at the International Center for Quantum Materials, Peking University. Her research explores the microscopic mechanisms of high-temperature superconductivity and emergent phenomena in strongly correlated quantum materials using advanced X-ray spectroscopic techniques, particularly resonant elastic and inelastic X-ray scattering (REXS and RIXS). She has made contributions to understanding charge, spin, orbital, and lattice excitations and their interplay in unconventional superconductors. She has also contributed to the development of cutting-edge instrumentation, including the high-resolution RIXS spectrometer (hRIXS) at the European XFEL. Dr. Peng has authored more than 80 peer-reviewed publications, including papers in *Science,* Nature Portfolio journals, and *Physical Review Letter*s, which have received over 7,000 citations.

Professional Appointments

- 2026.8 - present: Tenured Associate Professor in the School of Physics, Peking University, China.
- 2019.6 - 2026.7: Assistant Professor in School of Physics, Peking University, China.
- 2018.1 - 2019.5: Postdoctoral Research Associate in Department of Physics, University of Illinois at Urbana-Champaign, US (Supervisor: Peter Abbamonte)
- 2013.12 - 2017.11: Postdoctoral fellow in Physics department, Politecnico di Milano, Italy (Supervisor: Giacomo Ghiringhelli)

Education

- 2008.9 - 2013.6: PhD in Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, China; Advisor: Xingjiang Zhou
- 2004.9 - 2008.6: B. S. in Physics, School of Physics and Technology, Wuhan University, China.

Research Interests

- Resonant elastic and inelastic X-ray scattering studies of charge, spin, orbital, and lattice excitations and their interplay in strongly correlated materials.
- Time-resolved X-ray scattering studies of ultrafast charge, spin, orbital, and lattice dynamics.

Professional Records

- **Journal Referees**: *Nature, Nature Materials, Nature Physics, Nature Communications, Science Advances, npj Quantum Materials, APS journals (PRL, PRX, PRB, PRResearch, PRMaterials), Science Bulletin, Superconductor Science and Technology etc.*
- **Editorial board member:** *Superconductor Science and Technology, Science Bulletin*