

Xiaoqian M Chen

Lawrence Berkeley National Laboratory and University of Kentucky
Berkeley, CA 94720
(615) 480-0506
xmchen@lbl.gov

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Department of Physics and Astronomy
Texas Tech University
Lubbock, TX 79409

Dear Committee Members,

I am writing to express my interest in the ‘Assistant Professor’ position in condensed matter physics at Department of Physics and Astronomy, Texas Tech University. I learned about this position on the Physics Today website. I believe my background in experimental condensed matter and expertise in synchrotron based x-ray diffraction and imaging will complement current research group at Texas Tech University.

My research interest gravitates towards studying strongly correlated materials using coherent x-ray scattering and imaging. I am especially interested in the effects of disorder, quantum confinement and real time observation of emerging phase textures in- and out-of equilibrium associated with phase transitions. I hope to explore possible collaboration with Professor Luis Grave De Peralta and Professor Mahdi Sanati on the projects I proposed in the research statement.

After graduated from Cornell University for BS in Engineering Physics, I joined Peter Abbamonte’s group at University of Illinois at Urbana-Champaign where I attained broad insights to strongly correlated systems and various scattering methods. I joined the X-ray Scattering Group at Brookhaven National Lab as a postdoctoral research associate to focus on using coherent soft x-rays to study transition metal oxides. In collaboration with the CSX-1 beamline at the National Synchrotron Light Source II (NSLSII), my work revealed the static nature and a pinning mechanism of charge density wave in lanthanum cuprates, which were recognized as one of the key experiments at NSLSII for two successive years. After moving to Berkeley Lab at my current postdoctoral position, I employed my expertise in nanofabrication to have studied dynamics in artificial magnetic lattice.

I hope through my research and teaching, I can pass on what I have learned from my mentors and motivate students to pursue their interest in physics. My appreciation for teaching was nurtured by watching my mother who teaches computer science in college. In response, I was a teaching assistant as early as an undergraduate. At the same time, I

learned to respond to a diverse student background by working at the Math Support Center as well as volunteering in events that promote women in science.

I hope Texas Tech University will be my home where I will grow as an early career scientist and contribute to the department's strong scientific and education program. Please find enclosed in my application: my CV, list of publications, teaching statement, research statement, and contact information of my references. Please contact me if you have any questions regarding my application. Thank you for your time and consideration. I look forward to hearing back from you.

Sincerely,

Xiaoqian M Chen