

Postdoc Positions for Quantum Materials and Quantum Dynamics in the Ping Group at University of Wisconsin, Madison

DESCRIPTION

[The Ping Group](#) at the [University of Wisconsin, Madison \(UW-Madison\)](#) invites applications for Postdoctoral Scholar openings of condensed matter and materials theory starting from July 1st, 2023. Under the direction of Prof. Yuan Ping, the Postdoctoral Scholar will develop theory and computational methods based on first-principles many-body theory and recently developed [ab-initio open quantum dynamics methods](#) in her group, and apply them to a wide range of materials platform such as [quantum defects](#), [2D materials](#), topological and magnetic materials, and halide perovskites. The projects are supported by [NSF MRSEC](#), [DOE Computational Chemistry](#), [DOE EFRC](#), and [NSF CAREER](#) awards. Senior position beyond the postdoc level is possible based on experiences; student mentoring and grant writing responsibilities are expected.

Applicants with expertise in condensed matter theory, materials theory, or physical chemistry and significant experience in any of the following areas are strongly encouraged to apply: developing first-principles methods for excited states and correlated electrons in solids such as Green's function methods (GW/BSE, DMFT), real-time TDDFT, electron-phonon coupling, spin dynamics, quantum transport, and having experiences in massively-parallel numerical implementations for advanced electronic structure methods.

Bio: Yuan Ping received her B.Sc. degree from University of Science and Technology of China in 2007 and her Ph.D. from UC Davis under Giulia Galli (currently at U. Chicago) in 2013. She was a materials postdoctoral fellow at Caltech from 2013 to 2016, under William Goddard III. In 2016, she joined the faculty at University of California, Santa Cruz as an assistant professor in Chemistry and affiliated professor in Physics department, promoted to associate professor in 2022 July. Ping will start as the associate professor in Materials Science and Engineering department, affiliated professor in Physics and Chemistry in UW-Madison from July, 2023. Ping's research group currently focuses on many-body perturbation theory for excited states and exciton recombination, and ab-initio open quantum dynamics for spin and electron relaxation, and spin and optical properties of quantum defects in quantum information science and spintronics applications. Ping is a recipient of Alfred P. Sloan fellow in 2022, [DOE Computational Chemistry award](#), NSF CAREER award, Air Force Young Investigator Program (YIP) award, and ACS COMP OpenEye Outstanding Junior Faculty Award.

Ping group website:

<https://yuanping.chemistry.ucsc.edu/>

APPLY by sending email to: yuanpingforward@gmail.com

ACADEMIC TITLE

Postdoctoral Scholar (and beyond)

BASIC QUALIFICATIONS

- Ph.D. (or equivalent foreign degree) in physics, applied physics, physical chemistry, materials science, or related field at the time of application.

DURATION OF POSITION

The appointment is renewable up to **three years or more**.

POSITION AVAILABLE

As soon as possible after initial review of the applications.

Documents/Materials

- Letter of application that briefly summarizes your qualifications and interest in the position (required).
- Curriculum vitae (required) Including list of publications.

Reference Requirement

Applicants must provide the names and contact information of their references (a minimum of 3 are required and a maximum of 5 will be accepted). The hiring unit will request confidential letters* from the references of those applicants who are under serious consideration.