**Postdoc position for excited states and quantum dynamics in materials in the Ping Group at University of California, Santa Cruz**

**DESCRIPTION**

The Ping Group (http://yuanping.chemistry.ucsc.edu/) at the University of California, Santa Cruz (UCSC) invites applications for a Postdoctoral Scholar of condensed matter and materials theory. Under the direction of Prof. Yuan Ping, the Postdoctoral Scholar will: 1) develop and apply advanced electronic structure methods for excited state dynamics in emerging materials such as 2D quantum defects (https://www.nature.com/articles/s41524-021-00525-5; Y. Ping et al, Nat. Comput. Sci. 1, 646, (2021)) and hybrid organic-inorganic materials; 2) develop theory and computational codes for open quantum dynamics with many-body interactions built on our recent work (J. Xu et al, Nat. Commun. **11**, 2780 (2020) and Phys. Rev. B **104**, 184418 (2021)) for spin dynamics in quantum information science and spintronics applications.

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, 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 in JCAP at Caltech from 2013 to 2016, under William Goddard III. In 2016, she joined the faculty at UC Santa Cruz as an assistant professor in Chemistry department and affiliated professor in Physics department. Ping's research group focuses on many-body perturbation theory for electronic excitation and exciton recombination, and ab-initio open quantum dynamics for spin and electron relaxation for applications in quantum information science and energy conversion. Ping is a recipient of Alfred P. Sloan fellow in 2022, NSF CAREER award in 2022, Air Force Young Investigator Program (YIP) award in 2021, and ACS COMP OpenEye Outstanding Junior Faculty Award in 2021.

**Ping group website:**
**https://yuanping.chemistry.ucsc.edu/**

**APPLY by sending email to: yuanping@ucsc.edu**

**ACADEMIC TITLE**
Postdoctoral Scholar

**SALARY**
Commensurate with qualifications and experience based on UC Salary scale, from $54K – 65K per year.

**BASIC QUALIFICATIONS**

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

**POSITION AVAILABLE**

As soon as possible after initial review of the applications.

**DURATION OF POSITION**

Initial appointment will be 100% for one year. Reappointment can be considered contingent upon the availability of work and appropriate funding up to three years or more.

**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.