The Division of Materials Science and Engineering at Ames Laboratory, a Department of Energy National Laboratory affiliated with Iowa State University, is searching for two qualified Postdoctoral Research Associates.

The project involves research in the areas of theoretical method development, implementation and simulations for correlated quantum materials, with focus on hybrid approaches combining classical and quantum computing algorithms. This position is funded by the recent DOE Quantum Information Science (QIS) initiative in materials research under the award on “Quantum Computing Enhanced Gutzwiller Variational Embedding Method for Correlated Multi-Orbital Materials”. The work will be performed as part of a research team led by Yongxin Yao, Kai-Ming Ho, Cai-Zhuang Wang and Peter P. Orth.

The successful candidate will have excellent verbal and written communication skills, and will be able to communicate effectively to a wide variety of audiences. The individual must be able to work effectively with team members.

Required Qualifications: 1) Ph.D. must be completed prior to start date.

Preferred Qualifications: 1) Ph. D. in condensed matter physics, materials science or related areas; 2) Experience in quantum computing algorithm development, quantum computation or quantum simulation; 3) Knowledge of analytic or numeric many-body techniques, for example, dynamical mean-field theory, Gutzwiller slave-boson method, or other embedding approaches; 4) Research experience in the field of strongly correlated materials; and 5) Programming experience in Python, modern Fortran, C/C++ and/or PyQuil, Qiskit, QASM, Forest, CircQ.

Interested candidates should submit 1) a cover letter detailing specific experience; 2) current C.V.; and 3) contact information for three (3) references at the following link: https://isu.wd1.myworkdayjobs.com/en-US/IowaStateJobs/job/Ames-IA/Postdoctoral-Research-Associate---Ames-Laboratory_R382. To guarantee consideration, applications must be submitted prior to August 22nd, 2019.

Ames Laboratory/Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. veteran. Inquiries regarding non-discrimination policies may be directed to Office of Equal Opportunity, 3350 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, Tel. 515 294-7612, email eoffice@iastate.edu.