The Department of Computational Mathematics, Science and Engineering (CMSE), a newly-created department at Michigan State University, invites applications from outstanding candidates for multiple tenure system open-rank faculty positions in the broad area of computational modeling and high performance computing. The anticipated start date is August 16, 2016.

Michigan State University is making a bold new effort by launching the CMSE department, recognizing that computational and data science is a fundamental area of research in the 21st century. The department seeks to create an interdisciplinary environment that fosters a new breed of algorithmists who will address emergent problems in science and engineering, setting the stage for computation to be on the same footing as experiment and theory in its role in scientific discovery.

In service to this goal, the Department of CMSE will be hiring 10 faculty in computational and data science over the next two years, with the goal of growing the department to roughly 30 faculty. This recruitment effort is one part of a major University initiative, which will hire more than 100 new distinguished and diverse faculty across science, engineering and biomedical disciplines to meet the recognized national and international grand challenges.

A significant area of research focus within CMSE will be on the synergy between algorithms for computational modeling and data science in physical, biological, and engineering applications. The majority of positions within CMSE will be jointly held with other departments on campus, with tenure home in CMSE. Furthermore, the new department has a mandate to develop an innovative curriculum at both the graduate and undergraduate levels that expands upon the role of algorithm development, massively parallel and heterogeneous computing, and the use of computational tools in problem solving.

The department is looking to fill application-oriented algorithm development faculty positions; specifically, the department is looking for algorithmists (fundamental and applied) in areas listed below. While exceptional candidates from all areas of computational modeling and high performance computing will be considered, particular attention will be given to:

Algorithm development: numerical linear algebra, inverse methods, uncertainty quantification, multiscale methods, and algorithms pertaining to massively parallel and heterogeneous computational platforms.

Applications: Broad application areas include biology, materials science, and accelerator technology, with a specific interest in researchers who can make connections with MSU’s areas of experimental expertise. Examples include:
- Biology: neuroscience, tissue modeling, image processing
- Material science: energy materials design, materials discovery/characterization, additive manufacturing
- Accelerator technology: compact accelerator design, accelerator component design

Faculty in CMSE are expected to develop a world-leading research program, mentor graduate students, and participate in the development and implementation of the new computational and data science curriculum.

Online application is required via MSU’s online job application website https://jobs.msu.edu posting #1911. Applications should include a cover letter, CV, statement of research plans, and a one-page teaching statement, all in a single PDF file. In addition, four letters of recommendation should be submitted electronically through this application system. Applications received by Oct. 21, 2015 will receive full consideration, but the search will continue until the positions are filled. Questions regarding the position may be directed to Prof. Bill Punch, Chair of the Search Committee (punch@cse.msu.edu).

Michigan State University
Invites applications for faculty positions in computational modeling & high performance computing in the Department of Computational Mathematics, Science and Engineering

MSU is an affirmative action, equal opportunity employer and is committed to achieving excellence through cultural diversity.

Michigan State University has been advancing knowledge for more than 160 years. A member of the Association of American Universities, MSU is a research-intensive institution with 17 degree-granting colleges.

The University actively encourages applications and/or nominations of women, persons of color, veterans and persons with disabilities. Job applicants are considered for employment opportunities and employees are treated without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or veteran status.