Materials Modeling

The University of North Texas invites applications for a senior (Assoc. or Full) faculty position in materials modeling. An earned doctorate in Materials Science, Chemistry, Mechanical Engineering or Physics or a related field is required, and post-doctoral experience is preferred. The senior candidate will have an established national (associate professor) or international (full professor) reputation with an active, externally funded research program. The area of specialization is broadly defined, but we particularly seek candidates who complement existing strengths (see http://cascam.unt.edu for more details). All applicants must apply by visiting http://facultyjobs.unt.edu/applicants/Central?quickFind=51067. Screening begins immediately and will continue until the position is closed.

We are looking for a person who is able to perform electronic structure calculations for solid state physics, chemistry, condensed matter theory, or materials physics, using density functional theory or related techniques. Applicants with expertise in statistical methods based on molecular dynamics and their applications in biophysics, biochemistry and material science are of interest. Applicants with expertise in continuum, hybrid continuum-atomistic, or multiscale modeling or related physics-based modeling techniques applied to materials science are also of interest, as are researchers developing novel methodologies for materials modeling.

The University of North Texas is undergoing significant expansion in research personnel and capabilities (http://www.unt.edu/president/insider/aug09/schooltowatch.htm). The position is part of a larger UNT plan to establish a leading center for scientific modeling and this new hire will join an exceptionally productive and collaborative cluster of researchers – 16 faculty, ca. 50 researchers – encompassing computational chemistry, condensed matter theory, fluid/particle dynamics as well as atomistic, mesoscale and continuum level modeling of advanced materials. Current MMRC (http://mmrc.unt.edu) faculty are funded by the NSF, DOE, Welch Foundation, AFRL, and other private and industrial sponsors, and participate in grants totaling >$30 million. Several national centers are affiliated with the research cluster including an NSF Chemical Bonding Center and a DOE Energy Frontier Research Center. UNT is also the home of the Center for Advanced Scientific Computing and Modeling (CASCaM) (http://cascam.unt.edu/), an interdisciplinary center of excellence in advanced scientific computing and modeling. CASCaM has its own dedicated 2000-core supercomputing facility, maintained and operated by a Ph.D.-level research scientist, which will be upgraded this academic year. Additionally, a new $2M research computing facility came online in 2010 (http://citc.unt.edu/hpc/content/talon).

UNT is a Class I – Doctorate Granting Institution strategically located in Dallas-Fort Worth (DFW) and is 30 minutes from the DFW International Airport. DFW is an area of more than six million people, with significant economic growth, low cost of living, numerous industrial establishments, and excellent school districts. This area and the university provide excellent cultural and educational opportunities as well as exceptional employment opportunities. UNT is the fourth largest university in Texas with over 36,000 students. UNT is an AA/ADA/EOE.