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EMSL In Brief
Environmental Molecular Sciences Laboratory

Computing Time Granted for Annual Computational Grand Challenges

In October, the Environmental Molecular Sciences Laboratory (EMSL) awarded computing time on its 11.8-teraflop supercomputer to 18 collaborative research groups that submitted proposals under the user facility's Computational Grand Challenge program.

EMSL's MSCF awarded computing time on the user facility's 11.8-teraflop supercomputer to 18 research groups as part of its Computational Grand Challenge program.

The awards were granted by EMSL's Molecular Science Computing Facility (MSCF) and encompass research in the biological, chemical, climate, and subsurface sciences. The MSCF received 21 letters of intent to submit full proposals requesting a total of 20 million hours of time, with 18 proposals ultimately submitted by research groups from national laboratories, domestic and international universities, a private company, and a variety of other research institutions. All 18 applicants were awarded time from a pool of 9.5 million available hours.

Proposals for Computational Grand Challenges are solicited by the MSCF annually for research that addresses complex scientific challenges faced by the U.S. Department of Energy and the nation. Computational Grand Challenges can be proposed for periods of 1 to 3 years, depending on the scope of the research. Proposals are awarded based on the results of external scientific peer reviews. The MSCF seeks applications that require a large number of processors and a significant portion of the MSCF resources. As a user facility, these resources are available to users at no cost.

Twenty-three Computational Grand Challenges, including the 18 new projects, are currently active and apply MSCF resources to a broad range of research, including radiation and material studies, nanostructure research, catalyst design, hydrogen research, molecular-level biological studies, metal reduction investigations, and atmospheric aerosols research.

More information about the MSCF and associated Computational Grand Challenges are located at http://mscf.emsl.pnl.gov/. For more information, contact Mary Ann Showalter (509-376-5751).