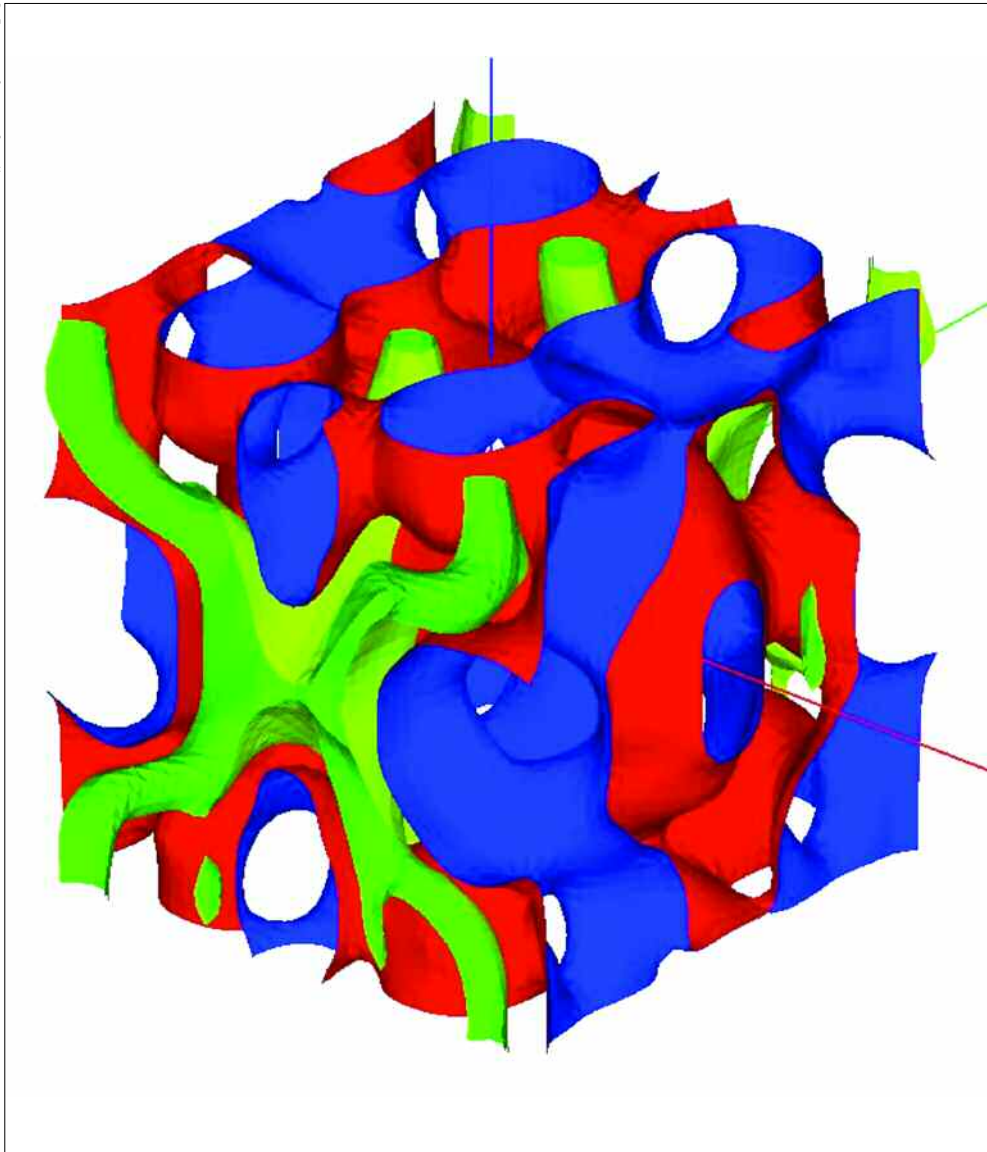


D. ZACHMANN, COLORADO STATE UNIVERSITY



Preview: Subsurface Science

To be featured in an upcoming issue of *SciDAC Review*, research efforts focused on subsurface science are being led by Dr. Tim Schiebe of PNNL, Dr. Paul Meakin of Idaho National Laboratory, Dr. Peter Lichtner of LANL, Dr. Dave Zachmann of Colorado State University, and a number of other investigators. Humans have entered into and explored a wide range of environments, ranging from the deep ocean to the upper atmosphere and even outer space. But for the most part, the subsurface environment hidden beneath the surface of our planet remains enigmatic and directly observable only through limited points of access. This visualization of pore-scale flow velocities was computed using the Smoothed Particle Hydrodynamics method. Green surfaces are isosurfaces of velocity, red surfaces are external grain surfaces, and blue surfaces are internal views of grain surfaces (where grains are partially cut away).

Legend of Common Acronyms

SciDAC	Scientific Discovery through Advanced Computing
DOE	U.S. Department of Energy
NSF	National Science Foundation
NASA	National Aeronautics and Space Administration
PI	Principal Investigator
HPC	High-Performance Computing

National Laboratories

Argonne National Laboratory	ANL	http://www.anl.gov/
Brookhaven National Laboratory	BNL	http://www.bnl.gov/world/
Los Alamos National Laboratory	LANL	http://www.lanl.gov/
Lawrence Berkeley National Laboratory	LBNL	http://www.lbl.gov/
Lawrence Livermore National Laboratory	LLNL	http://www.llnl.gov/
Oak Ridge National Laboratory	ORNL	http://www.ornl.gov/
Pacific Northwest National Laboratory	PNNL	http://www.pnl.gov/
Sandia National Laboratories	SNL	http://www.sandia.gov/