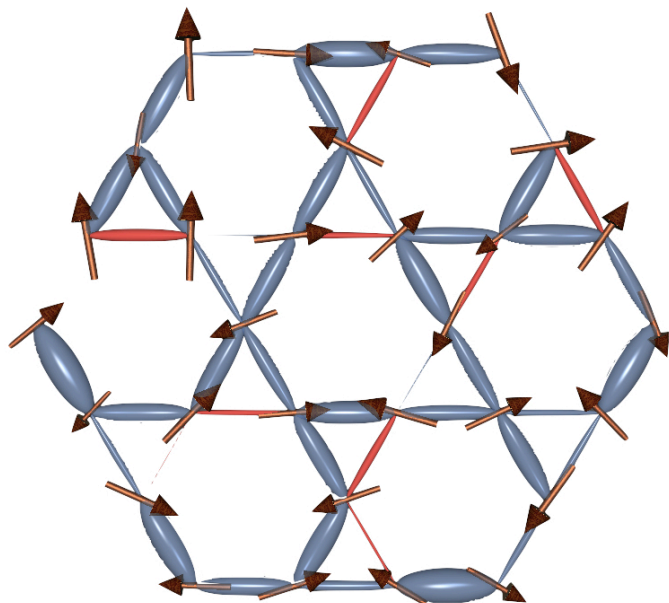


Public Lecture

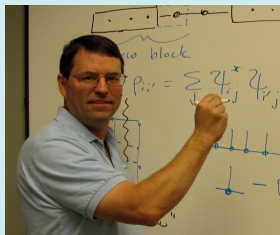
Chaos, Quantum Mechanics, and Computers



Wednesday, July 14th
7 pm, Room G1B20
Duane Physics Building
University of Colorado

For more information
call (303) 492 - 5436 or 3367

Computer simulation of the world around us is one of most important ingredients for progress in science and technology. The two biggest obstacles to simulating the world, chaos and quantum mechanics, share much in common, and so do the key methods to deal with them. What is chaos, what is quantum mechanics, and what do they have in common? How do you simulate any physical system, and what do you do when chaos or quantum mechanics makes the problem exponentially hard? I'll try to answer these questions, with examples ranging from the motion of the planets, to simulation of climate change, and finally to high temperature superconductivity.



Professor Steven R. White

Steven R. White is a Professor of Physics at the University of California, Irvine. Winner of the 2003 Aneesur Rahman Prize in computational physics, White is widely known as the inventor of the density matrix renormalization group, one of the most powerful methods for simulating quantum mechanics.

***Sponsored by 2010 Boulder School for Condensed Matter and Materials Physics
Supported by the National Science Foundation, Materials Theory***