



BERKELEY LAB

science at the theater

Lawrence Berkeley
National Laboratory's
Community Lecture Series
At Berkeley Rep



U.S. DEPARTMENT OF
ENERGY

free!

**MONDAY
SEPTEMBER 22, 2008**

ALL LECTURES 5:30 – 7:00 PM
Berkeley Repertory Theatre, Thrust Stage
2025 Addison Street, Berkeley, California

**Presented by Berkeley Lab
Friends of Science**

Co-sponsored by the University of California at Berkeley, Chabot Space & Science Center, The Exploratorium, Lawrence Hall of Science, Osher Lifelong Learning Institute@Berkeley, and the Science Departments of Albany, Berkeley, and Oakland High Schools

ARUN MAJUMDAR



MONDAY, SEPTEMBER 22

Buildings That Think Green The Next Generation of Smart Energy Technologies

Director, Environmental Energy Technologies Division, Berkeley Lab

Imagine a Zero Energy building.

Buildings are the SUVs of U.S. energy consumption, gobbling up 71% of the nation's electricity and 54% of its natural gas.

Arun Majumdar hopes to change that. He's leading a team of Berkeley Lab scientists to create a new generation of net-zero energy, carbon-neutral buildings. Majumdar's goal is to reduce today's demand by 90% in new buildings and by 50% in retrofitted old buildings by 2030.

Majumdar is leading the development of the High Performance Building Research and Implementation Center, known as HiPerBRIC, which expects to be a hub of global innovation - attracting the world's best scientists, engineers, architects, and social scientists to work on high-performance building technologies.

The HiPerBRIC vision is to transform the U.S. commercial building sector within 20 years, starting now, with energy-efficient designs and networks of digitally enabled ventilation, lighting, shading, and climate control systems that respond in near-real-time to temperature changes throughout the day and to the user's demands.

Professor Arun Majumdar received his PhD in Mechanical Engineering from UC Berkeley where he now teaches. In addition to his faculty and Berkeley Lab appointments, Professor Majumdar serves as the Director of the Berkeley Nanosciences and Nanoengineering Institute.

Next Lecture: Monday, October 13

Physics 101: What Our Next President Needs to Know

Author of Physics for Future Presidents: the Science Behind the Headlines, and Senior Scientist at Berkeley Lab



RICH MULLER