# Workshop: Mathematics of Planet Earth 2013+ Data-aware Energy Use

#### University of California-San Deigo San Diego, California

### September, 2014



A workshop "Data-aware Energy Use" will be held at UC-San Diego in **September**, **2014**. The workshop aims to expose students and junior researchers to the challenges facing our planet, the role of the mathematical sciences in addressing those challenges, and the opportunities to get involved in the effort. Funds are available to support participants to attend this workshop and to participate in follow-up activities.

We need to make good choices about today's energy investments, because they will be with us for a long time. Data can help us make better choices if we can surmount concomitant challenges: massive amounts of data; incomplete, unreliable or distributed data; real time data; fusing data for decision making; interoperating/distributed decision makers; decision making in dynamic environments of high consequence; complex, multidisciplinary problems. This workshop will explore harnessing data to address problems in energy, emphasizing four main areas: energy investment portfolios; smart grid; smart buildings; and electric vehicles.

## About Mathematics of Planet Earth 2013+

Mathematics of Planet Earth 2013 –Plus (MPE 2013+) grew out of Mathematics of Planet Earth 2013, an initiative of mathematical sciences organizations around the world designed to showcase the ways in which the mathematical sciences can be useful in tackling our world's problems. For more about MPE 2013, see www.mpe2013.org.



As MPE developed, it became clear there was momentum to propel it beyond 2013. The problems facing our planet will persist, and so the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) initiated a new project, (MPE 2013+, which aims to involve mathematical scientists in laying the groundwork for a long-term effort to surmount them and to sustain MPE activities beyond 2013.

## How to Participate

Financial support is available for graduate students, postdocs, and faculty researchers who have earned a doctorate within the last three years to attend the **Data-aware Energy Use workshop**. An application form can be found at



http://dimacs.rutgers.edu/Workshops/EnergyUse/.

The application should include both a registration form to attend and an application for financial support. Review of applications will begin **April 1**, **2014** and continue until all slots are filled.

For questions or more information, see the website or contact Eugene Fiorini, Associate Director of DIMACS & Program Coordinator (mpe2013p@dimacs.rutgers.edu).

The Workshop is organized by the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), with funding provided by the US National Science Foundation.







Photos: Tamra Carpenter