



# DIMACS

Center for Discrete Mathematics & Theoretical Computer Science  
Founded as a National Science Foundation Science and  
Technology Center



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

September 29 - October 1, 2014

University of California, San Diego

### *Call for Papers and Participation:*

Participants and presenters of papers and posters are invited to submit applications for participation or to give a presentation at a Workshop on Data-aware Energy Use to be held September 29-October 1, 2014 at the University of California, San Diego. This workshop is part of a special NSF-sponsored program Mathematics of Planet Earth 2013+. Special priority will be given to Early Career Researchers who wish to participate, especially those who wish to present a paper. Early Career Researchers are defined as faculty or researchers who have earned their doctorate within the previous three years, postdocs, graduate students, and upper-level undergraduates with research experience. Financial support is available for Early Career Researchers.

Increasing demand and expensive supply make efficient resource allocation and optimal decision making critical for energy systems. 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: large scale and distributed data acquisition; 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; consumer privacy - all complex, multidisciplinary problems.

The theme of the workshop is to study the importance, use, and value of data in decision making in energy applications. We will explore harnessing data to address problems in energy, emphasizing three primary areas: sensor networks, data mining, optimization applied to grids, homes, buildings and electric vehicles.

Focus areas include, but are not limited to:

- sensor networks for energy data acquisition
- data mining and analysis, to guide energy efficiency decision making and policy
- data driven optimization control of energy systems
- data collection and actuation in power systems and the smart grid
- ubiquitous applications of data aware energy use, such as smart homes and buildings

**HOW TO APPLY TO PARTICIPATE AND FOR FINANCIAL SUPPORT:** If you would like to apply to participate, please go to <http://dimacs.rutgers.edu/Workshops/EnergyUse/applicant.html> to apply. There are a limited number of spaces available. At the same website, you may also apply for (partial) financial support. Applications to attend and for financial support will be accepted until all slots are filled.

**HOW TO SUBMIT A PAPER OR POSTER:** Papers and posters can be on any theme of the workshop as reflected in the workshop announcement. Talks will be approximately 15 minutes in length. Please include the title of the paper or poster, names and affiliations of authors, the contact author's name, address, email address, and phone number. The abstract or description should be no more than 20 lines, single-spaced. Submissions in tex or latex should not use style files unique to your institution. Indicate the presenter of multiple author papers with an asterisk (\*). Please submit all requested information to <http://dimacs.rutgers.edu/Workshops/EnergyUse/talk.html>. Deadline for submission is **August 15, 2014** or until all paper/poster slots are filled. Please indicate with your submission whether you would prefer to present your paper orally or in a poster session. Acknowledgement will be by email. Authors will be notified of acceptance or rejection by email.

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