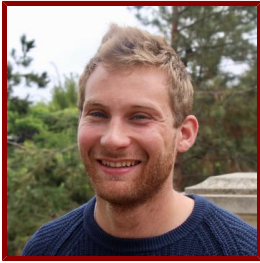


Stanford



Jacques de Chalendar

Ph.D. Student in Energy Resources Engineering

Bio

BIO

Jacques de Chalendar is a doctoral candidate in the Energy Resources Engineering department at Stanford University and a Precourt State Grid Corporation of China Graduate Student Fellow through the Bits and Watts initiative. He is advised by Profs. Sally Benson and Peter Glynn.

His PhD research focuses on applying state-of-the-art computational tools, at the intersection of optimization and statistics, to energy and carbon management problems. A case in point for this research is the Stanford Energy Systems Innovations project, the campus district energy system, which provides a unique source of real data as well as an ideal test-bed for new ideas and control algorithms.

During his MSc, supervised by Prof. Sally Benson, he worked on image processing techniques and physical simulation models to further our understanding of the micron-scale behavior of trapped carbon dioxide in deep saline aquifers, and gain insights as to the long-term security of geological sequestration.

He was previously an intern at a San-Francisco-based energy management startup, Growing Energy Labs, Inc. (Geli) and in the Electricity Infrastructure group at the Pacific Northwest National Laboratory (PNNL).

LINKS

- Academic site: <http://web.stanford.edu/~jdechale/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Integrated Energy Systems

Publications

PUBLICATIONS

- **Tracking emissions in the US electricity system.** *Proceedings of the National Academy of Sciences of the United States of America*
de Chalendar, J. A., Taggart, J., Benson, S. M.
2019
- **Why 100% Renewable Energy Is Not Enough** *JOULE*
de Chalendar, J. A., Benson, S. M.
2019; 3 (6): 1389–93

- **City-scale decarbonization experiments with integrated energy systems** *ENERGY & ENVIRONMENTAL SCIENCE*
de Chalendar, J. A., Glynn, P. W., Benson, S. M.
2019; 12 (5): 1695–1707
- **Pore-scale modelling of Ostwald ripening** *JOURNAL OF FLUID MECHANICS*
de Chalendar, J. A., Garing, C., Benson, S. M.
2018; 835: 363–92
- **Pore-scale Considerations on Ostwald Ripening in Rocks** *Energy Procedia*
de Chalendar, J. A., Garing, C., Benson, S. M.
2017; 114: 4857-4864