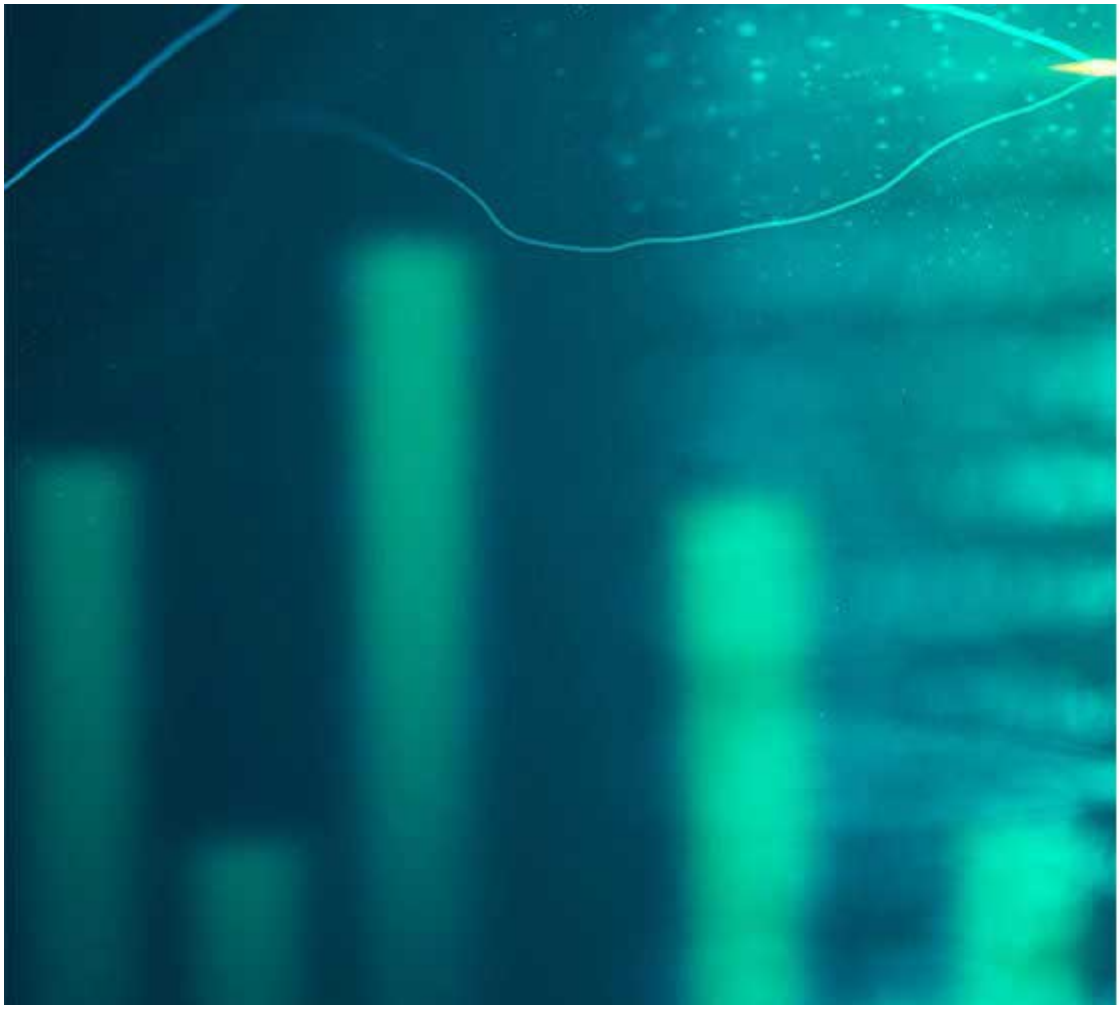

Written on 17 July 2019 2 minutes of reading
News

- Fundamental Research

- Economics
- Economic modeling

During the 2nd quarter of 2019, IFPEN welcomed Professor Peter Cowling, from the Department of Computer Science at York University (United Kingdom). A specialist in operational research, he has worked on issues pertaining to combinatorial optimization, dynamic programming and game theory. He has applied these mathematical modeling methods in different industrial sectors.

Professor Peter Cowling was welcomed to the IFPEN site by a team of professors from the IFP School. As part of his scientific visit, he worked on the interactions between energy and environmental policy decisions, in support of energy transition, and individual household decisions. The objective of this work was to better understand how decentralized means of electricity production and the use of associated storage facilities are developed.

During his stay, Professor Cowling collaborated mainly with two IFP School research professors, Frédéric Lantz and Arash Farnoosh, as well as with two doctoral students, Pierre Cayet and Maria-Juliana Suarez-Forero, whose thesis topics focus on these issues.

Their collaborative work has led to:

- a review of the existing documentation on game theory models applied to intermittent electrical systems;

- the construction of a power generation model, integrating intermittence and storage with a decision system.

This work will lead to several publications on the dynamics of interactions between public policy instruments for supporting renewable energy and household behavior, as well as on the resolution of large-scale combinatorial models representing intermittent energy production and storage.

IFPEN contact: ***Frédéric Lantz***

IFPEN welcomed British Professor Peter Cowling, a specialist in operational research
17 July 2019

Link to the web page :