



**UNIVERSITÉ
DE GENÈVE**

**INSTITUT DES SCIENCES
DE L'ENVIRONNEMENT**

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CYCLE DE FORMATION ÉNERGIE – ENVIRONNEMENT

SÉMINAIRE 2018-2019

Capacity controlled heat pump systems in combination with PV, batteries and heat demand

Ralph Dott

FHNW

Jeudi 2 mai 2019 à 17h15

Salle 1 (rez-de-chaussée) – Uni Carl Vogt

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<http://www.unige.ch/sysener/fr/contact/plan>

L'orateur

Ralph Dott obtained a Diploma in Mechanical Engineering at RWTH Aachen in 2000.

He worked as research associate from 2001 to 2003 at Solar-Institut Jülich - FH-Aachen, and since 2003 at Institut Energie am Bau – FHNW (Fachhochschule Nordwestschweiz).

He is currently focusing on research projects on system integration of heat pumps, for example: combination of heat pumps with solar technology, energy efficient cooling, city-compliant air-to-water heat pumps as main heat generator (City of Zürich).

He also works on industry projects in the fields of heat pump with ice storage and/or photovoltaics, small combined heat and power systems with photovoltaics and battery storage, and Power2Gas in the building sector.

La conférence

The talk will take into account two points of view. The main part of the talk will be the view of a scientist working at a university of applied sciences and on the research project LEWASEF that focused on the integration of an air-to-water heat pump into the building energy control system for a single-family house coupled with PV and batteries.

After a short general introduction and prospective scenarios on heat pumps technologies and market by 2030, details from the research project LEWASEF will be discussed.

The second part will set this system into a broader view on heat pump heating systems, quality assurance, the actual state of development and upcoming challenges.

The summary will go back on a general level with a look on challenges of such systems in the market now.