



**UNIVERSITÉ  
DE GENÈVE**

**INSTITUT DES SCIENCES  
DE L'ENVIRONNEMENT**

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**CYCLE DE FORMATION ÉNERGIE – ENVIRONNEMENT**

**SÉMINAIRE 2019-2020**

## **Potentiel spatial du développement des réseaux de chaleur en Suisse**

**Jonathan Chambers**

*UNIGE*

**Jeudi 31 octobre 2019 à 17h15**

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

66 bd Carl Vogt, 1205 Genève

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

## **L'orateur**

Jonathan Chambers is a post-doctoral researcher at the Chair for Energy efficiency within the Institute for Environmental Sciences (ISE) of University of Geneva.

He holds a Ph.D. from University College London in Energy in Buildings, a M.Sc in Energy Science and Technology from ETH Zurich, and a B.Sc. in Physics and Philosophy from Durham University. He has work experience with several start-up companies in a range of energy fields, including concentrating solar power with Airlight Energy, behavioural energy savings through customer engagement with BEN Energy, and energy systems simulation with Adaptricity.

He works on the themes of energy efficiency in buildings and districts, with particular focus on building thermal efficiency. He applies big-data driven statistical, machine learning, and geospatial methods to modelling of building stocks and technologies.

## **La conférence**

Successfully decarbonising energy use in buildings, in particularly energy consumption for heating and cooling, requires an urban planning approach that moves beyond individual buildings to consider district and city level energy systems.

This calls for geospatial energy modelling to identify local energy resources (industrial excess heat, solar energy, water bodies, geothermal, etc), determine suitable currently available technology options, and determine the prospects for new thermal technologies. Using national datasets, we can produce a detailed spatio-temporal analysis of the energy supplies and demands in the form of maps. This allows rapid evaluation of opportunities everywhere in Switzerland.

This work presents analysis of the potential for constructing district heat networks, as well as the potential to supply these networks with industrial excess heat.