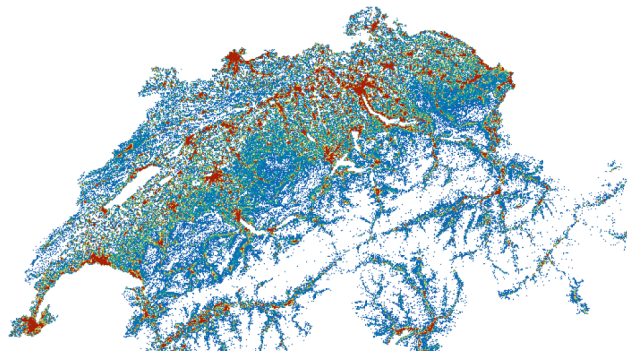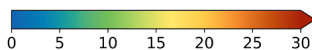**UNIVERSITA' DEGLI STUDI DI MILANO**
BICOCCA

From Data to Watts: how can Machine Learning accelerate the energy transition in the built environment?

Dr Roberto Castello

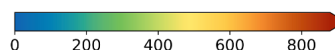*Principal Data Scientist, EPFL Swiss Data Science Center*

Annual Photovoltaic potential (MWh)

0   5   10   15   20   25   30

Aggregated photovoltaic potential per pixel (MWh)

0   200   400   600   800

Abstract

In this seminar, I will present real-world examples where Data Science and Machine Learning techniques are leveraged to accelerate the transition towards a low-carbon emission and a more energy-efficient built environment. Unsupervised and supervised learning methods are applied to large and heterogeneous datasets to optimize energy systems, to perform anomaly detections and to monitor the deployment of renewables at scale.

Datasets range from temporal records of building monitoring devices, to publicly accessible, high-resolution, satellite and aerial images. The results are used to inform energy stakeholders and policy makers and to accelerate the energy transition at local and national level.

Duration: 45min + 15min Q&A
The seminar will be in english