

Portrait of Benjamin LE ROY, METEO FRANCE



Hello Benjamin, can you tell us more about yourself?

My name is Benjamin Le Roy and I'm currently a **PhD student at Météo-France under the supervision of Aude Lemonsu** in the VILLE team. I studied physical geography and it is how I developed an interest in climatology. During my masters' internships I **had the chance to work on the use of satellite imagery for urban climate services**, notably the estimation of the Surface Urban Heat Island phenomenon. These experiences sparked my interest in both urban climatology on the scientific side and also **being able to work with stakeholders and decision makers on a more societal side.**

What are you doing in the context of the URCLIM project?

My PhD work meets with URCLIM topic, and can be divided in three main axes.

A first step, part of the Methods for impact assessment group, consists in the **development of indicators specific to the urban climate**. In my case, I study the potential of spatialized data on the city of Paris such as: infrared satellite imagery or weather stations interpolation for the surface and air Urban Heat Island effect and the use of radar analysis for the impact of the city on precipitation.

The second step of my thesis is **to apply a statistical downscaling methodology based on weather types to regional climate models** to simulate the urban climate under climate change with various models and scenarios. The goal is to be able to quantify the associated uncertainties.

Lastly, as part of the Evaluation of strategies group, I will **use the indicators developed before to quantify the potential impacts of climate change on the urban climate** under different urbanization scenarios, urban planning strategies.

What do you expect from URCLIM?

I hope that URCLIM project will be able to show the interest and possibilities of the urban climate study for urban planners, decision makers and stakeholders through the development of various tools ranging from high resolution urban maps to impact study methodologies. For me the final goal would be the implementation and the use of URCLIM results in urban planning..