

PhD POSITION (MSc also possible)
Trees, green infrastructures and ambient temperatures in public places

While a large portion of the population lives in cities and urban forests are recognized for the benefits they provide, we know very little about them. In a future of more frequent and intense heat waves, urban trees will be critical to ensuring the livability of cities. While trees are known to aid in temperature regulation, the information we have is crude, with minimal data on the influence of vegetation on urban T° collected at fine spatial scales. This is particularly true for air T° – a more relevant measurement for well-being than surface T°. Our ambitious project aims to provide concrete answers to these many challenges.

Advances in sensor-based technology provide opportunities to quantify air T° at data-sparse intra-urban scales. Mobile sensors facilitate access to areas that are difficult to sample and allow measurement along continuous land-cover gradients. The candidate will work with our partner Jakarto (a company focused on AI-driven 3D mapping) and their extensive knowledge and vehicle fleet to collect baseline data in Montreal (others if time allows), conducting repeated transects, resulting in the most comprehensive fine-scale air T° dataset collected to date. Another component of our project seeks to understand the effect of trees and green infrastructures on air T° and people's well-being in urban public places, which are often important heat islands. This project benefits from the support and infrastructures of the Partenariat du Quartier des spectacles in Montreal, among others, which manages some of the most important public spaces in North America (e.g. the Montreal International Jazz Festival). Potted trees equipped with sensors and communicating with the public have been installed there since 2021.

The selected candidate will contribute to an interdisciplinary project led by an expert team of researchers from different universities, and partners from municipalities, private companies, and non-profits, thus broadening their professional network. Prospective students should contact us (paqlab@uqam.ca) with the following information: **letter of interest, CV, unofficial transcripts, and contact information for references**. Informal inquiries are welcome. Please don't hesitate to share any career interruptions or personal circumstances that may have had an impact on your career goals. The position will be at UQAM (Concordia also possible) under the supervision of Alain Paquette and Carly Ziter. Desired start date is January 2024 but is flexible. A full scholarship and support such as parental leave are available. A working knowledge of French is desirable for this position for effective communication with partners. Applicants should be interested in working with technology and large data sets.

Think you're out of luck because of your background, a disability, or the way you dress? Relax, we don't care, because innovation is born from diversity. Our team offers an inclusive, equitable, respectful, healthy, and open-minded work environment - because we work there too! **An exceptional opportunity to join a dynamic and welcoming research group! We want our people to be happy!**

Learn about us here : [Alain Paquette](#) / [Carly Ziter](#)

[Chaire de recherche sur la forêt urbaine](#)

Partenaires : [Jakarto](#) / [Partenariat du Quartier des spectacles](#)