Yuchen is a postdoctoral fellow at UMR AMAP - IRD, Montpellier, France. His research focuses on the integration of AI and remote sensing techniques to advance the understanding of global biogeochemical cycles. He is particularly interested in leveraging Deep Learning and LiDAR data to improve the accuracy of ecosystem monitoring, carbon cycle assessment, and climate change predictions.

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12 Mai 2025
13h45 – 15h00

Salle 109, Bâtiment 9, IMAG, Campus Triolet, Rue du Truel, 34090 Montpellier

Simulation and machine learning models for bias assessment and reduction in leaf area density estimators in tropical forest

presented by

Dr. Yuchen Bai

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ABSTRACT:

Leaf Area Index (LAI) is a key parameter regulating water and carbon fluxes. Current LAI estimation methods have inherent biases, particularly from woody components. In this presentation, I will present how our work employs trial emulation to quantify these biases. I will also introduce SOUL, a deep learning model that uses only point coordinates to perform leaf/wood segmentation.

KEY WORDS:

LiDAR; Emulation; Deep Learning

Invited and animated by:	Dr. Yuchen Bai (UMR AMAP - IRD)
Type:	Research results
Oral language:	English
Language of PPT:	English