



# Keynote Lecture

*Thursday 29, 9:00-10:30*

## **Challenges of digital trace data in the study of collective behaviour**

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The rise of digital trace data (e.g. social media activity, mobile phone location records, etc.) has revolutionised how we observe and model collective behaviours, by providing unprecedented resolution in space, time and scale. This data allows us to gain new evidence and knowledge in complexity science, but it also exposes a trade-off between the abundance of information and reliability. In this talk, I will examine how uneven levels of engagement with digital platforms and inequalities in digital access across user groups influence the patterns and behaviours we infer. I will review recent methodological advances for identifying and understanding these data biases. My goal is to encourage a more critical and reflexive use of digital trace data, so that its growing influence leads to more credible and responsible science.