

## **Analysis in sub-elliptic and sub-Riemannian settings: challenges and recent approaches.**

*lundi 28 août 2023 14:30 (45 minutes)*

In this talk, we will discuss various approaches that have emerged over the last decades to tackle different questions related to the analysis of sub-elliptic and sub-Riemannian settings. For instance, the study of hypoellipticity in these contexts has made considerable progress using groupoid methods from operator algebra while spectral properties of certain sub-Laplacians have been analysed with PDE and micro-local techniques. We will also describe the development of a systematic notion of phase-space in these highly non-commutative contexts together with the associated semiclassical and microlocal analysis for subelliptic operators.

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