Dave-Haller's Weyl law and the tangent groupoid

Edward McDonald (Penn State University)

University of Wollongong

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Introduction

This talk is based on none of my own work, instead I want to advertise the following two papers:

E. Van Erp and R. Yuncken, A groupoid approach to pseudodifferential calculi. *J. Reine Angew. Math.* **756** (2019), 151–182.

and

S. Dave and S. Haller, The heat asymptotics on filtered manifolds *J. Geom. Anal.* **30** (2020), no. 1, 337–389.

Plan for this talk

1. Carnot-Caratheodory geometry
2. The tangent groupoid (of Connes)
3. The *H*-tangent groupoid (of van Erp and Yuncken)
4. The Volterra calculus
5. The Weyl law in Carnot-Caratheodory geometry

Thank you for listening!