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Room: CRM A1 (Universitat Autònoma de Barcelona)

Rectifiability of a class of integralgeometric measures and applications

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In his textbook "Geometric Measure Theory" Federer proposed the following problem: is the restriction of the m-dimensional Integralgeometric measure to a finite set a m-rectifiable measure? After a brief introduction to the problem, I will introduce a novel class of measures based upon the idea of slicing and having integralgeometric structure. The central result of this talk will follow, which is a sufficient condition for rectifiability in the previously introduced class. I will then focus on the solution to Federer's problem and its application to a part of Vitushkin's conjecture still not completely understood. Eventually, I will present a novel rectifiability criterion for Radon measures via slicing, reminiscent of White's rectifiable slices theorem for flat chains.

More information at: `https://mat.uab.cat/web/seminarianalisi/`