

The College of Arts & Sciences
Department of Mathematical Sciences

Colloquium

Professor Michal Wojciechowski

Institute of Mathematics, Polish Academy of Sciences

Thursday, September 22nd
Room 4221, French Hall West
4:00 – 5:00 pm

Microlocal approach to the Hausdorff dimension of measures

We present the study of the dependence of geometric properties of Radon measures, such as Hausdorff dimension and rectifiability of singular sets, on the wavefront set. We prove our results by adapting the method of Brummelhuis to the non-analytic case. As an application we obtain a general form of the Uncertainty Principle for measures on the complex sphere. This instance of the UP generalizes the celebrated theorem of Aleksandrov and Forelli concerning regularity of pluriharmonic measures. Joint work with Rami Ayoush.

Refreshments will be served 3:15 – 3:45 pm in the Faculty Lounge
4118 French Hall West