Harmonic Analysis and Geometric Measure Theory

Organizers:
Laurent Moonens (Université Paris-Sud)
Tiago Picon (Universidade de São Paulo)
Emmanuel Russ (Université Grenoble Alpes/Institut Fourier)
Mateus Sousa (Ludwig-Maximilians Universität München)

Description: Harmonic Analysis (HA) is the field of mathematics concerned with oscillatory pheonomena, and it dates back to studies of Joseph Fourier about decomposing periodic functions as combinations of basic sine and cosine waves, now called Fourier series. Geometric Measure Theory (GMT) is the study of geometric properties of sets using the tools and concepts from measure theory. GMT arose naturally from the quest to solve the Plateau problem about minimal surfaces. HA has found applications in many fields, such as analytic number theory and approximation theory, and its interplay with Geometric Measure Theory has a fundamental role in the modern qualitative study of Partial Differential Equations.

The goal of this special session is to gather experts working on Harmonic Analysis and/or Geometric Measure Theory. The list of speakers include a mix of both young and senior mathematicians from both countries working on problems with similar flavours and the session is meant to provide a good environment for interaction between advanced graduate students, and both starting and established researchers.

List confirmed speackers:

1. Alex Amenta (Universität Bonn)
2. Emanuel Carneiro (ICTP/IMPA)
3. Felipe Gonçalves (Universität Bonn)
4. Gustavo Hoepfner (UFSCar)
5. Antonin Monteil (Université Catholique de Louvain)
6. Laurent Moonens (Université Paris-Sud)
7. Jean Pech Moraes (UFRGS)
8. Lucas Oliveira (UFRGS)
9. Hervé Queffélec (Université Lille–France)
10. Emmanuel Russ (Université Grenoble Alpes/Institut Fourier)