

Harmonic Analysis and Geometric Measure Theory Special Session A11

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Abstract. This section aims at exploring the recent progress in and interplay between a few of the most prominent families of problems in Harmonic Analysis, such as

- Fourier restriction inequalities, decoupling and local smoothing estimates;
- problems related to the set and maximal Keakey conjecture;
- singular integrals in the Euclidean, doubling, and non-doubling setting, and their application to Geometric Measure theory;
- Continuous and discrete Radon transforms, oscillatory integrals related to Carleson’s theorem, and discrete operators in Harmonic Analysis.

These circles of problems, and the researchers working on them, all rely on diverse technical tools from a variety of fields of contemporary mathematics such as modern Analysis, Algebraic Geometry, Combinatorics, and Number Theory. In contrast with the increasingly specialized nature of their problems, researchers coming from different subfields share the same language of classical Harmonic Analysis and Geometric Measure Theory. This special session aims at highlighting both shared aspects, and at fostering interaction between researchers from each subfield. The invited speakers draw from both pools of world-leaders in the field and of innovative, accomplished and diverse earlier-career mathematicians. The Italian and American Harmonic Analysis communities will both be well represented, with additional emphasis on geographic diversity

For more information visit

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