## Topics in Harmonic Analysis - Math 542 Spring 2013

• Instructor: Malabika Pramanik

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• Web page: The course website is

http://www.math.ubc.ca/~malabika/teaching/ubc/spring13/math542/index.html

- Pre-requisites: Math 541 or its equivalent.
- **Topics**: A sample of selected problems whose solutions involve harmonic analysis.
  - Fourier analytic methods in convex geometry the Busemann-Petty problem.
  - The discrepancy method.
  - Variants of the Hilbert transform.
- Lectures: Tuesday, Thursday 9:30-11 am in Buchanan D325.
- Grading Policy: There will be no homework assignments. You will be asked to give 2-3 oral presentations related to the course material not covered in detail by the instructor. In addition, you will need to turn in a short expository paper on one of the topics of your presentation. The content of your oral presentations and written submission should be discussed with the instructor.