



# ANALYSIS SEMINAR

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## Sharp Inequalities and the Colloquium of Christ

by

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### ABSTRACT

Mike Christ recently gave a neat colloquium talk here at the Claremont Colleges about his work on sharp inequalities for the Radon transform and their extremals.

In this analysis seminar talk I will:

1. Give an overview of the approach to Sharp inequalities initiated by Lieb and developed further by Lieb, Brascamp, Carlen, Loss and others. The original setting was the Hardy-Littlewood-Sobolev inequality but Christ has extended the method to the Radon transform and related operators.
2. Provide a little background about the Radon Transform and review the main result of Christ's colloquium talk and its relation to #1. ( Finding optimizers for a sharp Radon transform inequality.)
3. Hopefully ask one or two well-posed open questions stemming from consideration of alternative approaches to sharp inequalities.

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**Friday, November 18, 2011, at 1:30-2:30 pm**

Millikan 213, Pomona College

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