



The University of Chicago  
Department of Statistics  
STATISTICS COLLOQUIUM

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**CHARLES FEFFERMAN**

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Princeton University

**Fitting a Smooth Function to Data**

**MONDAY, April 30, 2012, at 4:00 PM**

133 Eckhart Hall, 5734 S. University Avenue

*Refreshments following the seminar in Eckhart 110.*

**ABSTRACT**

The talk describes an efficient algorithm to solve the following problem: Given a real-valued function  $f$  defined on a finite subset  $E$  of  $R^n$ , compute a function  $F$  that agrees with  $f$  on  $E$  (exactly or to a given accuracy), and has  $C^m$  norm nearly as small as possible. Also, we discuss recent progress on the analogous problem with Sobolev norms in place of the  $C^m$  norm.

Joint work with Arie Israel, Garving (Kevin) Luli and Bo'az Klartag.

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For further information and inquiries about building access for persons with disabilities, please contact Dan Moreau at 773.702.8333 or send him an email at [dmoreau@galton.uchicago.edu](mailto:dmoreau@galton.uchicago.edu). If you wish to subscribe to our email list, please visit the following website:  
<https://lists.uchicago.edu/web/arc/statseminars>.