



# GLOBAL ANALYSIS SEMINAR

## Fiber products for manifolds with corners and generalized blow-up

Chris Kottke

Brown University

**Abstract:** I will give a brief introduction to the theory of manifolds with corners and ‘b-maps’. Then I will discuss a new result with Richard Melrose which characterizes those transversal maps for which smooth fiber products exist in this category, along with a theory for resolving the fiber products when they fail to be smooth.

This result is an application of a new construction called “generalized boundary blow-up,” meant to extend the iterative process of successive radial blow-up of boundary faces. This construction uses ideas similar to those in toric geometry to approach complicated resolution problems through combinatorial methods.

Wednesday March 30, 1–2:20pm  
Wachman Hall 617

<http://math.temple.edu/events/seminars/manifolds/>