

QFT Reading Seminar



Speaker: **Stephan Stolz**
 University of Notre Dame

Wednesday, September 29, 2010
4:00 pm
117 Hayes-Healy Hall

Title: Factorization algebras and quantum mechanics

Abstract:

This fall we will be reading the work of Costello and Gwilliam on Factorization Algebras in Perturbative Quantum Field Theory (this is available at <http://math.northwestern.edu/~costello/factorization.html>). The point is that the (classical and quantum) observables of such a QFT are encoded in a factorization algebra.

It should be noted that factorization algebras are a C^∞ -analogue of chiral algebras as developed by Beilinson and Drinfeld (this will not be a point of emphasis). Further, Costello, Gwilliam, and others building on the topics of this seminar have used one and two dimensional QFT to study manifolds and recover such information as the Witten genus.