

Stanford Department of Mathematics Colloquium

NON-COMMUTATIVE GEOMETRY AND QUANTUM FIELD THEORY

GRAEME SEGAL
Oxford University

Abstract

There is a rough equivalence between the category of commutative rings and the category of topological spaces, which is the basis of the way in which quantum physics describes the world. Thinking about the equivalence leads us towards variants and generalizations of the objects on both sides of the picture. On the algebraic side we can consider non-commutative rings, but also more subtle kinds of algebraic structures such as quantum field theories. I shall describe how these variants are reflected in the homotopy theory on the geometrical side.

Tuesday, April 15
4:15 p.m.
Room 380-C

NOTE SPECIAL TIME AND PLACE

<http://math.stanford.edu/coll/0708/>