



UNIVERSITY OF CALIFORNIA RIVERSIDE

DEPARTMENT OF MATHEMATICS

Colloquium

Dr. Bernard Badzioch
(SUNY Buffalo)

“Categorical Algebra Of Mapping Spaces”

Abstract: One of the long standing problems in homotopy theory is the questions how, for a given space A , one can characterize the class of spaces which are homotopy equivalent to the pointed mapping space $\text{Map}(A, Y)$. In case where A is an n -dimensional sphere S^n this problem was solved in several ways using the machinery of operads, PROPs, Segal special Delta-spaces etc. The common feature of all these descriptions is that they detect if a given space X is of a type of a mapping space from S^n , using only certain maps between finite product of X . This shows the mapping spaces $\text{Map}(S^n, Y)$ are essentially algebraic objects. The talk will describe how one can try to generalize this approach to describe mapping spaces for spaces A other than S^n and the obstructions that one encounters.

Wednesday, April 22, 2009

Surge 284

4:10-5:00pm

Tea Time at 3:40pm