



UNIVERSITY OF CALIFORNIA RIVERSIDE

DEPARTMENT OF MATHEMATICS

COLLOQUIUM

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UC IRVINE

“A New Product for Differential Forms on Symplectic Manifolds”

Many geometrical invariants of manifolds can be expressed in terms of the differential forms on them. As such, it is important to understand the types of algebra that differential forms may have on a manifold. In this talk, I will describe how differential forms on symplectic manifolds have novel characteristics. In particular, I will present a new product operation for forms on symplectic manifolds that is different from the standard wedge product. This new product interestingly involves derivatives and is non-associative. Of consequence, it leads to an A-infinity algebra structure for forms and a ring structure for the cohomologies on symplectic manifolds.

Wednesday, November 12th, 2014

Surge 284

Tea Time 3:40 p.m.

Talk Begins 4:10 p.m.