

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Friday, September 7, 2007

Professor Tornike Kadeishvili
Razmadze Mathematical Institute
Republic of Georgia

A_∞ -algebra structure in cohomology and the
rational homotopy type

ABSTRACT: It is obvious that the rational cohomology algebra $H(X; \mathbb{Q})$ does not define the rational homotopy type. We show that this cohomology is naturally equipped with an additional structure, namely with a structure of commutative A_∞ -algebra and this object completely determines the rational homotopy type. We present various applications of this complete rational homotopy invariant.

3:00 - 3:50 pm HA 335

Faculty and Students are invited to attend.