Algebraic Topology Seminar

Prasit Bhattacharya

of Notre Dame will be speaking on

The stable Adams conjecture

on Wednesday, January 06 at 4:30 pm in Eckhart 203

The Adams conjecture, perhaps one of the most celebrated results in the subject of stable homotopy theory, was resolved by Quillen and Sullivan independently in the 1970s. Essentially, the Adams conjecture says that the q-th Adams operation on the topological K-theory composed with the J-homomorphism can be deformed continuously to the J-homomorphism itself if localized away from q. The stable enhancement of the Adams conjecture (which is only possible in the complex case) claims that this deformation can be achieved within the space of infinite loop maps from BU to the classifying space of spherical bundles. We recently found that the only accepted proof of the stable Adams conjecture, which is due to Friedlander (1980), has a mistake. In this talk, we will reformulate the statement of the stable Adams conjecture, sketch our new proof of the stable Adams conjecture and discuss some of the ramifications. This is a work joint with N. Kitchloo.

There will be a pretalk at 3pm.

For information, write to Danny Xiaolin Shi at dannyshixl@gmail.com