

GEOMETRY–TOPOLOGY SEMINAR AND GLOBAL ANALYSIS SEMINAR

Peter Scott

University of Michigan

will speak on

Splittings of groups and manifolds

ABSTRACT: In the mid 1970's, Jaco and Shalen, and independently Johansson, proved that Haken 3-manifolds have a canonical submanifold (possibly empty) called the characteristic submanifold, and they showed that this submanifold has some important properties. Starting in the mid 1980's, there has been a whole series of algebraic results which describe analogous results in group theory. However, none of these results yields as much information as the topological result when applied to the fundamental group of a Haken 3-manifold.

In this talk, I will discuss joint work with Gadde Swarup of the University of Melbourne in which we give a new approach to this area. We obtain new algebraic results which yield the topological result when applied to the fundamental group of a Haken 3-manifold.

The aim of the talk will be to convey the basic ideas of our approach rather than all the details!

WEDNESDAY, 11 NOVEMBER 2009

LECTURE AT 1:00 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS