

STATISTICS COLLOQUIUM

MONDAY, APRIL 28, 2008

TALK: 4:00 P.M. — Science Center, Rm. 309

RECEPTION: 5:15 PM – SCIENCE CENTER, 7TH floor

“ON THE TOPOLOGY BEHIND TOPOLOGY BASED INFERENCE”

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ABSTRACT

Karl Friston has recently coined the term “topology based inference” as a way to describe inferential procedures based on the shape of random objects arising in the statistical analysis of brain images. Similar techniques have also been used in astrophysics and are gaining popularity in other areas as well. In this talk, I will concentrate on explaining some powerful new results in the geometry of random functions, which lie behind these new techniques.