

Wednesday, February 10, 2010

4:00–4:50 p.m.

SAS 2102

Knots, Surfaces and the Fundamental Group

Nathan Reading

Spring is in the air; the human heart turns to **topology** (or maybe just to **pizza**). Topology is the study of the properties of a space that are not changed when the space is stretched and/or contracted without tearing it or gluing it to itself. We'll discuss a particular algebraic tool for topology: the **fundamental group**. This can be used to show that two topological spaces are truly different. In particular, we'll discuss how the fundamental group can prove that two knots are different, or prove that two 2-dimensional “universes” are different. The talk will be **accessible to all undergraduates**. No previous knowledge of topology or groups is needed.

NCSU Society for Undergraduate Mathematics

SUM Series

Mathematics and pizza!