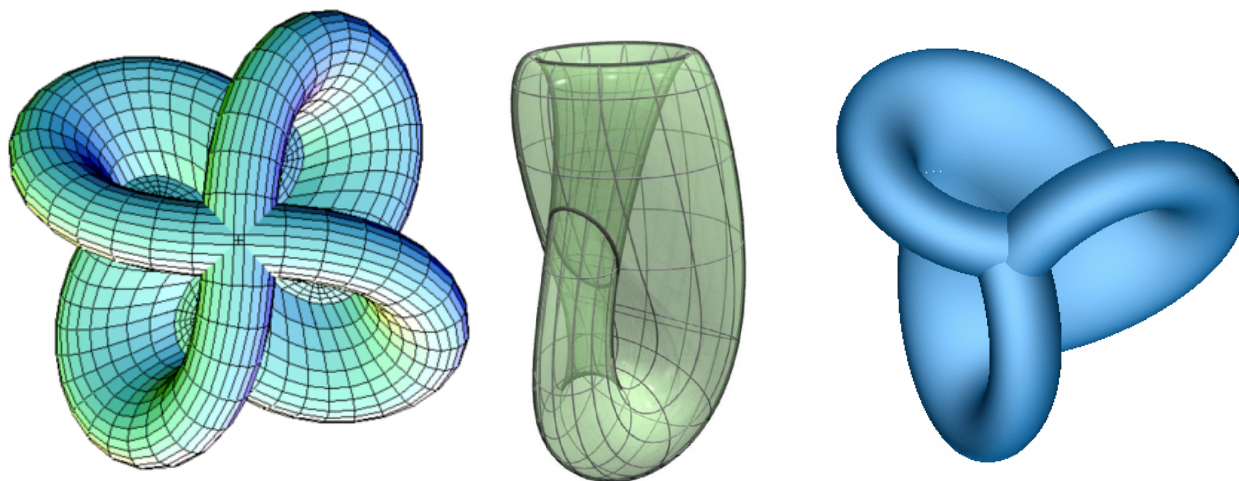


SPRING 2013

Math 213A: Introduction to Smooth Manifolds

Instructor: SLOBODAN SIMIĆ, slobodan.simic@sjsu.edu, (408) 924-7485

Time: MW 1:30-2:45

Prerequisite: MATH 113 or MATH 175 or MATH 132 (with a grade of C- or better) or instructor consent.

Textbook: John M. Lee, *Introduction to Smooth Manifolds*, Springer, GTM 218, 2006

What this course is about: Many spaces important in geometry as well as physics and engineering do not naturally “live” in a Euclidean space, so they have to be studied in an abstract way, as *manifolds*. The central topic of this course is the concept of a *smooth manifold*. Just like in MATH 113 a surface is a subset of \mathbb{R}^3 which locally looks like an open subset of \mathbb{R}^2 , a smooth n -manifold is an abstract space which locally looks like an open subset of \mathbb{R}^n . The study of smooth manifolds has been one of the most active and exciting fields of mathematics in the last hundred years. This is a place where geometry, topology, analysis, and algebra (even number theory!) meet to produce some of the most beautiful results in mathematics. If this sounds appealing to you, please contact me or just sign up for the class. We need ten or more students for the class to run. MATH 213A is offered only every two years so it would be a pity for it to get cancelled.

Web page: For most up to date information, please email me or go to

<http://www.math.sjsu.edu/~simic/>.