

**University of Georgia
Department of Mathematics**

**Seminar Schedule
February 13 – February 17, 2006**

All Seminars are held in Boyd Graduate Studies Bldg. unless otherwise noted.

MONDAY, February 13, 2006

Topology/Geometry

2:30pm, Room 222

No Meeting this week

Algebra

2:30pm, Room 410

Speaker: Nadia Mazza, University of Georgia

Title of talk: *The norm map and the cohomology of wreath products.*

Abstract: In preparation for the upcoming mini-course on the Steenrod operations, we review the essential cohomological tools needed. Namely, we will (re-)view the notions of wreath product of finite groups, tensor induction of modules, (Evens) norm map, and cohomology of wreath products. In addition, applications and examples of the norm map will be presented.

John Gosselin@ Tea Social

3:00pm, Room 409

Coffee, Cookies, Tea

TUESDAY, February 14, 2006

VIGRE-Graduate Student Seminar

2:00p.m., Room 304

Speaker: Kenyon Platt, University of Georgia

Title of talk: *Bird's-Eye View of Category O_S*

Abstract: Given a Lie algebra \mathfrak{g} over the complex numbers, a \mathfrak{g} -module V is a complex vector space on which \mathfrak{g} acts. I will discuss briefly a certain category of \mathfrak{g} -modules called category O_S .

WEDNESDAY, February 15, 2006

Geometry in the Curriculum Seminar

1:25pm, Aderhold, Room 111

No Meeting this week

Algebraic Geometry
2:30pm, Room 410
No Meeting this week

John Gosselin@ Tea Social
3:00pm, Room 409
Cookies, Coffee, Tea

Colloquium

3:30pm, Room 302

Speaker: Olga Plamenevskaya, MIT

Title of talk: *Heegaard Floer theory, knots, and contact structures*

Abstract: Heegaard Floer theory is one of the most significant recent developments in low-dimensional topology. Reminiscent of gauge theory, it provides powerful invariants for 3-manifolds. Although defined via holomorphic disks, these 3-manifold invariants have an unexpected connection to combinatorial knot invariants developed by Khovanov.

I will outline the construction of Heegaard Floer and Khovanov theories, as well as their relation (due to Ozsvath and Szabo). Then, I will expand these results to the world of contact topology, providing a new invariant for transversal knots, and bringing the correspondence between the two theories to a new level.

Arithmetic Geometry/Number Theory

3:30pm, Room 304

Speaker: TBA

Title of talk: TBA

VIGRE- Algebra

2:30pm, Room 303

Speaker: Lenny Chastkofsky, University of Georgia

Title of talk: *Cohomology computations and conjectures*

THURSDAY, February 16, 2006

VIGRE – Feynman Diagrams

2:00pm, Room 326

VIGRE – Cardiac Physiology

2:00pm, Room 640

VIGRE- Zeta Functions

2:15pm, Room 302

VIGRE-Algebraic Geometry
3:30pm, Room 324

FRIDAY, February 17, 2006

Probability Theory

2:30-3:30pm, Room 303

Speaker: C. Zhuang, University of Georgia

Title of talk: *Time-discretization of Zakai equation*