

University of Georgia
Department of Mathematics

Seminar Schedule
February 20 – February 24, 2006

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

MONDAY, February 20, 2006

Topology/Geometry

2:30pm, Room 222

Speaker: Andreas Bernig, Universite, Perolles

Title: "Smooth valuations, Rumin cohomology and the Hard Lefschetz Theorem"

Abstract: A convex valuation is a real-valued map Ψ on compact convex sets that satisfies $\Psi(K \cup L) + \Psi(K \cap L) = \Psi(K) + \Psi(L)$ whenever K, L and $K \cap L$ are compact and convex.

In the last few years, many interesting algebraic properties of the space of valuations were discovered. This includes a Poincaré duality and a Hard Lefschetz Theorem for smooth translation invariant valuations.

In this talk we will explain a recently discovered interplay between valuations and the cohomology of contact manifolds. It partly explains the above mentioned theorems in cohomological terms (joint work with L. Bröcker).

Algebra

2:30pm, Room 410

Speaker: Jon Carlson, University of Georgia

Title of talk: *Steenrod Operations and group cohomology*

Abstract: This is the first of a series of two lectures on Steenrod operations and how they apply to group cohomology. The Steenrod operations are secondary cohomology operations that are useful in both algebra and topology. In the first lecture we will try to give an overview of why the operations exist and some properties of the algebras. If time allows, we will begin a construction of the operations.

Faculty and Graduate Student Social

3:00pm, Room 409

Coffee, Cookies, Tea

TUESDAY, February 21, 2006

VIGRE-Graduate Student Seminar

2:00p.m., Room 304

Speaker: Robb Sinn, North Georgia College & State University

Title of talk: *Interesting Applications of Game Theory: Law, Biology & Counter-Terrorism*

WEDNESDAY, February 22, 2006

Geometry in the Curriculum Seminar

1:25pm, Aderhold, Room 111

Speaker: Tom Banchoff, University of Georgia

Title of talk: *Internet-based visualization in undergraduate mathematics*

Algebraic Geometry

2:30pm, Room 410

No Meeting this week

VIGRE- Algebra

2:30pm, Room 303

Speaker: Bobbe Cooper and Carrie Wright, University of Georgia

Title of talk: *Degree $2p-1$ cohomology in type A.*

Faculty and Graduate Student Social

3:00pm, Room 409

Cookies, Coffee, Tea

Arithmetic Geometry/Number Theory

3:30pm, Room 304

Speaker: Dino Lorenzini, University of Georgia

Title of talk: *Some remarks on rational points on certain curves related to rational distance sets.*

THURSDAY, February 23, 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 24, 2006

Probability Theory
2:30-3:30pm, Room 303
Speaker: C. Zhuang, University of Georgia
Title of talk: *Zakai equation (cont.)*