

MATHEMATICS DEPARTMENT SEMINAR SCHEDULE

December 2 – December 6, 2002

All seminars are held in Boyd Graduate Studies unless otherwise noted

MONDAY, December 2, 2002

Faculty and Graduate Social

2:00 p.m., Room 409

Coffee, Tea, Cookies

Group Representation & Cohomology

2:30 p.m., Room 410

Speaker: TBA

Title of talk: "TBA"

Topology

2:30 p.m., Room 326

No Meeting this week

Colloquium

2:30 p.m., Room 304

Speaker: Julie Mitchell, Assistant Principal Scientist, San Diego Supercomputer Center (UCSD)

Title of talk: "*Generating rotation sets that are uniform with respect to the Haar measure on $SO(3)$* "

Abstract: For certain applications, particularly in crystallography, it is desirable to have a uniformly distributed set of 3D rotations. However, there are mathematical obstacles to constructing a perfectly uniform sample of the special orthogonal group, $SO(3)$. The talk will compare three distinct methods for generating subsets of $SO(3)$ that are approximately uniform with respect to its Haar measure.

Cats

4:40 p.m., Room 328

VIDEO PRESENTATION (54 minutes)

Speaker: Ronald Graham, Professor of Math. and CS at UCSD

Title of talk: "*The Shortest Network Problem*"

Abstract: The efficient routing of telephone messages between cities is just one of many situations in which the Steiner problem often arises. This problem asks for the shortest network of line segments to interconnect a set of given points. It appears, for example, in the design of highway systems, oil pipelines, air conditioning systems, and integrated circuits on silicon chips. Dr. Graham's overview of the Steiner problem provides an introduction to NP-completeness, a fundamental concept in theoretical computer science.

TUESDAY, December 3, 2002

VIGRE

2:00 p.m.-3:15 p.m., Room 304

Speaker: Mihály Bakonyi, Georgia State University

Title of talk: “*Nehari's Problem and Generalizations*”

Algebraic Geometry

3:30 p.m., Room 326

Speaker: Robert Varley, University of Georgia

Title of talk: Some remarks on Thom-Boardman loci and an argument from J. Wethington's thesis

Abstract: I will recall the notion of the Thom-Boardman symbol of a map germ and mention some properties of the symbol. Then I will indicate a strategy that Janice W. uses in her thesis to analyze the Thom-Boardman symbol of the map germ defined by 1-variable polynomial multiplication.

Student Number Theory

3:30 p.m., Room 303

Speaker: Charles Pooh, University of Georgia

Title of talk: *TBA*

WEDNESDAY, December 4, 2002

Wavelet Analysis

10:10 - 11:00 a.m., Room 410

Speaker: Okkyung Cho, University of Georgia

Title: “*Biorthogonality for bivariate box spline wavelets*”, *continued*

Graduate Student Seminar

2:30 p.m., Room 303

Speaker: Sybilla Beckmann-Kazez, University of Georgia

Title of talk: “*Lesson Study*”

No Writing assignment due

Faculty and Graduate Social

3:00 p.m., Room 409

Coffee, Tea, Cookies

Numerical Analysis

3:30pm, Room 410

Speaker: Ming-Jun Lai, University of Georgia

Title of talk: *“Domain decomposition methods”, continued*

Lie Theory

3:30 p.m., Room 302

No Meeting this week

Number Theory

3:30 p.m., Room 304

No Meeting this week

FRIDAY, December 6, 2002

Geometry

2:30 p.m., Room 322

Speaker: Joe Fu, University of Georgia

Title of talk: *“Kinematic formulas in real and complex space forms”*