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Mathematics and Statistics

**Seminars & Colloquium**

**September 13 - 17**

**Colloquium: There is no colloquium this week.**

**Monday – September 13**

**GK-12 seminar**

Time: 4:00-4:50pm

Room: MATH 115

Speaker: Gretchen Gurtler

**Noyce Scholars seminar**

Location: MATH 115

Time: 12:00-12:50pm

Speaker: Tara Stevens

Topic:FAPE, FIE’s, IEP’s, FBA’s, and BIP’s… what they mean for the math educator.

**Tuesday – September 14**

**Logic-Topology Seminar**

Time: 2:30-3:30pm

Location: Math 013

Speaker: T. McLaughlin

“A distributivity problem for substructure lattices of computable ultra powers”

**Math Education seminar**

Location: MATH 109

Time: 4:00-4:50pm

Speaker: Discussion

Topic: Principles of Good Teaching

**Wednesday – September 15**

**Analysis Seminar**

Time: 4:00-5:00 pm

Room: MATH 109

Speaker: Dr. Ed Allen

Title: “Introduction To Some Useful Concepts In Stochastic  
           Processes, Stochastic Integrals, and Stochastic Differential

Equations. Part I”

**Applied Math Seminar**

Location: MATH 014.

Time: 4:00-5:00pm

Speaker: Prof. Luan Hoang, Texas Tech University

Title: Generalized Forchheimer equations for porous media: Part III

**Thursday – September 16**

**Friday – September 17**

**Algebra Seminar**

Time: 3:00–4:00 pm

Room: MATH 016

Speaker: Justin DeVries (U. Nebraska)

Topic: "The Betti Number of Multi-graded Differential Modules"

Abstract: A differential module is a module with a square-zero endomorphism. They have uses in the study of non-exact complexes, but also display interesting behavior of their own. We investigate the rank of a differential module when it has finite length homology. Using the Betti number of a differential module we prove a lower bound on the rank for multi-graded differential modules. This specializes to a bound on the rank of a complex of multi-graded free modules with finite length homology