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Mathematics and Statistics

**Seminars & Colloquium**

**October 10 – 14**

**Colloquium:**

No Colloquium This Week

**Monday –October 10**

**Student Holiday**

**Tuesday – October 11**

**Student Holiday**

**Wednesday – October 12**

**Geometry Seminar**

Location: MATH 115

Time: 4:00-5:00pm

Speaker: Lance Drager

Topic: Exterior Differential Systems and the Calculus of Variations: Part 3

**Applied Math Seminar**

Location: MATH 010

Time: 4:00-5:30pm

Speaker: Lidia Bloshanskaya

Topic: Time Asymptotic of Non-Darcy Flows with Total Boundary Flux

Abstract:

The talk is dedicated to the study of long term asymptotic of diffusive capacity, the integral characteristic of the domain with respect to non-linear Forchheimer flow in porous media. Conditions on the boundary are given in terms of the total flux and constraints on the trace of the pressure on the boundary. It is proved that if total flux stabilizes then the difference between pressure average inside domain and on the boundary stabilizes as well. This result can be applied to calculate productivity index of the well, an important characteristic of the well performance. To obtain the main theorem refined comparison of fully transient and pseudo steady state pressure (the time derivative of pressure is constant) was performed. These results can be effectively used in reservoir engineering and can also be applied in other problems modeled by non-linear diffusive equations.

**Diaconis Seminar**

Location: MATH 011

Time: 3:00-4:00pm

Speaker: Guoyuan Zhang

Topic: Chapter 6B

**Thursday – October 13**

**Noyce Scholar Seminar**

Location: MATH 238B

Time: 10:00-11:00am

Speaker: Discussion

Topic: Discussion

**Friday – October 14**

**Algebra Seminar**

No Seminar This Week