Colloquium

Dr. Piotr Przytycki

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and

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Monday, October 6, 2014

3:00-4:00 p.m., HH-3017

Geometric group theory and random groups

 Abstract:

One of the founders of geometric group theory is considered to be Max Dehn, who posed in 1911 the Word Problem: given a group find an algorithm which given a word over the generating set, decides whether the word represents the trivial element. This problem will be our ticket to travel through the history of geometric group theory. Beginning with Dehn's solution for surface groups, through small cancellation theory and Gromov's hyperbolic groups, to finally realize that a random group admits the same treatment. I will end with dwelling more on random groups, discussing results (and conjectures) that are joint work with Francois Dahmani, Vincent Guirardel, and John Mackay.