Geometry Seminar
April 11, 2006, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Convex geometries and Jamison's problem

Kira Adaricheva
Harold Washington College, Chicago

Abstract

The paper "Join-semidistributive lattices and convex geometries" by K. Adaricheva, V. Gorbunov and V. Tumanov (Adv. Math. 173 (2003), 1-49) has laid the foundation for the general study of closure systems with the anti-exchange axiom. We will discuss one of the most intriguing problems raised in the paper. It concerns the finite convex geometries that arise from the notion of convexity relative to the finite point configuration on the plane. A partial solution to the problem was obtained independently in two recent publications. The further progress may be achieved from the study of Jamison problem about the description of convex geometries of relatively convex sets on the plane. We will present the most recent progress in the ongoing joint project with M. Wild (University of Stellenbosch, South Africa).

For further information contact {pach,pollack}@cims.nyu.edu, or visit our website: http://www.math.nyu.edu/seminars/geometry_seminar.html