

Geometry Seminar
November 13, 2007, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

Some algorithmic and combinatorial applications of the Borsuk-Ulam theorem

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Abstract

The Borsuk-Ulam theorem has many applications in topology, geometry, and combinatorics. I will discuss some combinatorial consequences, typically asserting the existence of a certain combinatorial object. An interesting aspect is the computational complexity of algorithms that search for the object. The study of these algorithms can be facilitated by seeking direct combinatorial existence proofs that bypass Borsuk-Ulam.

Joint work with Sambudda Roy.

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