

UWM Math Colloquium

Friday, March 28, 2008, 4:00 PM, EMS E495A

"Right-Angled Mock-Reflection Groups"

by

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Abstract:

Right-angled reflection groups provide a useful testing ground for conjectures about infinite discrete groups. Examples include groups generated by orthogonal reflections across the faces of a convex polyhedron (spherical, Euclidean, or hyperbolic) whose dihedral angles are all 90 degrees. Any such group acts naturally on a certain cubical complex of nonpositive-curvature. We will discuss a generalization of this type of action that results in a larger class of groups, called "right-angled mock reflection groups". These groups include fundamental groups of certain configuration spaces and compactifications arising in algebraic geometry. We will give a combinatorial characterization of these groups in the same spirit as the well-known presentation for Coxeter groups. (Based on joint work with Tadeusz Januszkiewicz and Mike Davis.)

Refreshments: 3:30pm