

# Faces of Geometry: 3-Manifolds, Groups & Singularities

## A Conference in Honor of Walter Neumann

Hosted by the Mathematics Departments of Barnard College and Columbia University, City of New York  
6-10 June 2011

Funding provided by the National Science Foundation through a Research Training Grant.

All talks to take place in Room 312 of the Department of Mathematics, Columbia University. Coffee served in Room 508.  
The banquet will take place in the James Room of Barnard Hall, Barnard College.

Monday	Tuesday	Wednesday	Thursday	Friday
9:15 a.m. Coffee & bagels	9:15 a.m. Coffee & bagels	9:15 a.m. Coffee & bagels	9:15 a.m. Coffee & bagels	9:15 a.m. Coffee & bagels
10:00 a.m. Welcome by Joan Birman	10:00 a.m. <b>A. Reid</b> <i>Distinguishing residually finite groups by their finite quotients</i>	10:00 a.m. <b>D. Zagier</b> <i>Arithmetic properties of 3-dimensional quantum invariants</i>	10:00 a.m. <b>M. Kreck</b> <i>Some early papers by Walter Neumann</i>	10:00 a.m. <b>M. Bridson</b> <i>Maps between subgroups of mapping class groups</i>
10:20 a.m. <b>D. Gabai</b> <i>Topology of Ending Lamination Space</i>	11:15 a.m. <b>B. Farb</b> <i>Representation theory and homological stability</i>	11:15 a.m. <b>P. Norbury</b> <i>Gromov-Witten invariants of <math>P^1</math> and Eynard-Orantin invariants.</i>	11:15 a.m. <b>B. Goldman</b> <i>Complete flat 3-manifolds</i>	11:15 a.m. <b>G. Swarup</b> <i>Canonical decompositions of 3-manifolds and groups.</i>
11:30 a.m. <b>P. M. Neumann</b> <i>Galois and his groups</i>	12:15 p.m. Lunch break	12:15 p.m. Lunch break	12:15 p.m. Lunch break	12:15 p.m. Lunch break
12:30 p.m. Lunch break	2:00 p.m. <b>L. Birbrair</b> <i>Lipschitz Geometry of Complex Singularities</i>	2:00 p.m. <b>D. Calegari</b> <i>Random rigidity in the free group</i>	2:00 p.m. <b>B. Meyerhoff</b> <i>The Quest for the First Volume String</i>	2:00 p.m. <b>R. Bieri</b> <i>CAT(0)-groups, horospherical limit sets and early Tropical Geometry</i>
3:15 p.m. <b>C. Hodgson</b> <i>Veering triangulations admit strict angle structures</i>	3:15 p.m. <b>A. Pichon</b> <i>The thick-thin decomposition of a normal complex surface</i>	3:15 p.m. <b>S. Schleimer</b> <i>Efficient position for curves</i>	3:15 p.m. <b>C. Zickert</b> <i>Chern-Simons theory and hyperbolic volume</i>	3:15 p.m. <b>I. Mineyev</b> <i>The Hanna Neumann Conjecture</i>
4:15 p.m. Coffee	4:15 p.m. Coffee	4:15 p.m. Coffee & computer demonstration	4:15 p.m. Coffee	4:15 p.m. Coffee
4:45 p.m. <b>S. Tillmann</b> <i>The Margulis lemma for properly convex projective manifolds</i>	4:45 p.m. <b>J. Wahl</b> <i>Rational homology disk smoothings and log-terminal singularities</i>	4:45 p.m. <b>J. Behrstock</b> <i>Quasi-isometric classification of 3-manifold groups</i>	4:45 p.m. <b>A. Champanerkar</b> <i>Volume bounds for twisted torus links</i>	4:45 p.m. <b>G. Baumslag</b> <i>Residually nilpotent groups</i>
		7:00 p.m. Banquet		