Daniel Matei

Researcher

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Teaching SNSB

Spring 2008: Introduction to Hodge Theory.

- Lecture Notes: Lectures 1-8
- Homework: <u>Homework 1, Homework 2</u>

Spring 2007: Topology of Plane Algebraic Curves.

- Lecture Notes: Lectures 1-14
- Homework: <u>Homework 1, Homework 2</u>
- Teste: <u>Test 1, Test 2</u>

Research Interests

Geometric topology, algebraic topology, group theory.

- Braids, configuration spaces, knots, links, 3-manifolds.
- Topology of real and complex algebraic varieties.
- Homology of coverings, homology of local systems.
- Solvable and nilpotent quotients, Massey products.

Preprints

Recent preprints (Pdf versions to be made available soon):

Homology of finite index subgroups of finitely presented groups, to appear in Anal. Stiint. Univ. "Al.I.Cuza" Iasi.

Published papers

The following papers can be found on <u>arXiv</u>:

Massey products of complex hypersurface complements, Adv. Stud. Pure Math., 43, Math. Soc. Japan, Tokyo, **2006**.

Pro-p link groups and p-homology groups, (with Jonathan Hillman and Masanori Morishita) Contemp. Math., 416, Amer. Math. Soc., Providence, RI, **2006**.

Counting homomorphisms onto finite solvable groups, (with <u>Alex Suciu</u>) J. Algebra 286, 2005, no. 1, 161--186.

Hall invariants, homology of subgroups, and characteristic varieties, (with A. Suciu) Int. Math. Res. Notices, 2002, no. 9, 465-503.

Cohomology rings and nilpotent quotients of real and complex arrangements, (with A. Suciu) Adv. Stud. in Pure Math., 27, Math. Soc. Japan, Tokyo, 2000.

Homotopy types of complements of 2-arrangements in R^4, (with A. Suciu) Topology 39, 2000, no. 1, 61-68.

Math Preprint Archives

- Geometric Topology Archive
- <u>Hopf Topology Archive</u>
- <u>D. Benson, University of Georgia, Cohomology of Groups and Representation</u> <u>Theory</u>
- <u>Urbana K-theory Archive</u>

- British Topology Home Page
- Dror Bar-Natan's Bibliography of Vassiliev Invariants
- <u>Topology Atlas</u>

Other Resources

- e-MATH Home Page
- Geometry and Topology Addressbook
- The World-Wide Web Virtual Library: Mathematics
- Penn. State Mathematics Information Servers
- <u>MathSciNet</u>
- Math Resources on the Web
- U.S. Math departments
- American Universities