

# CURRICULUM VITAE

WILLIAM D. GILLAM

## Contact Information:

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**Research Interests:** Algebraic geometry, curve counting, moduli spaces and stacks, sheaf theory, knot theory, algebraic topology, logarithmic geometry, monoids, differential geometry, Morse theory

## Education:

Mathematics Ph.D. Columbia University (2008) (Advisor: M. Thaddeus)

Mathematics M.Phil. Columbia University (2008)

Mathematics M.A. Columbia University (2004)

Mathematics M.A. Wesleyan University (2003) (Advisor: W. W. Comfort)

Mathematics B.A. Wesleyan University (2002)

## Employment:

Assistant Professor of Mathematics, Boğaziçi University (2013-Present)

Postdoctoral Fellowship, ETH Zürich (2012-2013) (under B. Doran)

Tamarkin Assistant Professor of Mathematics, Brown University (2008-2012)

## Fellowships and Grants:

NSF Postdoctoral Research Fellowship (2008-2012) (Sponsor: D. Abramovich)

Marie Curie/TÜBİTAK Co-Funded Brain Circulation Scheme Fellowship

(Sponsor: N. S. Değer) (2014-2016)

TÜBİTAK 1003 Project No. 114E045 (Principal Investigator: F. Yarman-Vural)

## Teaching Experience:

Several semesters of private tutoring, helproom and grading work at Columbia

TA for graduate courses in differential geometry and commutative algebra at Columbia

Attended TA training session at Brown

Classes taught at Columbia: Precalculus, Calculus I

Classes taught at Brown: Fundamental Problems of Geometry, Honors Linear Algebra, Calculus II, Linear Algebra (x2), Probability

Classes taught at ETH: Deformation Theory (graduate)

Classes taught at Boğaziçi: Topology, Multivariable Calculus (x4), Projective Geometry, Algebraic Topology (graduate), Matrix Theory (x2)

Class notes/textbooks: Probability, Deformation Theory, Projective Geometry

**Advising:** Joint advisor for several of Dan Abramovich's PhD students at Brown (N. Giansiracusa, S. Marcus, Q. Chen). Also advised S. Molcho substantially. Two master's students at Bogazici (A. Karan, A. Demirhan). Besides those of the previously listed students, also served on several oral exam and PhD thesis committees at Brown, one PhD thesis committee at U. Zürich, and one master's thesis committee at Boğaziçi. Coordinated the Senior Seminar at Bogazici during the 2014-2015 academic year.

**Invited Talks:** U. British Columbia, Wesleyan, Stony Brook, Columbia, Clay Math. Inst., Utah, Colorado State, Rutgers, ETH, Boğaziçi, Yeditepe, Koç, Galatasaray, U. Georgia, Antalya Algebra Days conference

**Service:** Journal article reviewing, several MathSciNet reviews, several NSA/NSF proposal reviews. Organized the algebraic geometry seminar at Brown and a series of algebraic geometry talks at the Istanbul Center for Mathematical sciences.

## Publications and Preprints:

Log differentiable spaces and manifolds with corners. (with S. Molcho) arXiv:1507.06752

Deformation of quotients on a product. arXiv:1103.5482. Submitted.

On Kapranov's description of  $\overline{M}_{0,n}$  as a Chow quotient. (with N. Giansiracusa) Turk. J. Math. **38** (2014) 625-648.

Maximal subbundles, Quot schemes, and curve counting. arXiv:1103.2169. Submitted.

Logarithmic stacks and minimality. Int. J. Math. **23(7)** (2012).

Localization of ringed spaces. Adv. Pure Math. **1(5)** (2011) 250-263.

The evaluation space of logarithmic stable maps. (with D. Abramovich, Q. Chen, and S. Marcus) arXiv:1012.5416.

Logarithmic geometry and moduli. (with Abramovich, Chen, Huang, Olsson, Satriano, Sun) In the *Handbook of Moduli*. I. Morrison, G. Farkas, eds. International Press, 2013.

The Crepant Resolution Conjecture for 3-dimensional flags modulo an involution. arXiv:0708.0842. To appear in Comm. Alg.

Computations of Heegaard-Floer knot homology. (with J. Baldwin) J. Knot Theory Ram. **21(8)** (2012) 1250075.

Knot homology of  $(3,m)$  torus knots. J. Knot Theory Ram. **21(8)** (2012) 1250072.

A sheaf-theoretic interpretation of Khovanov's knot homology. J. Knot Theory Ram. **21(5)** (2012) 1250053.

Computability of a topological poset. Top. App. **153** (2006) 1132-1140.

Embeddability properties of countable metric spaces. Top. App. **148** (2005) 63-82.

The embeddability ordering of topological spaces. (with W. W. Comfort) Top. App. **153** (2006) 2192-2198.

Cleanliness of geodesics in hyperbolic 3-manifolds. (with C. Adams, A. Colestock, J. Fowler, and E. Katerman) Pacific J. Math. **213(2)** (2004) 201-211.

Cusp size bounds from singular surfaces in hyperbolic 3-manifolds. (with C. Adams, A. Colestock, J. Fowler, and E. Katerman) Trans. Amer. Math. Soc. **358** (2006) 727-741.