

# CURRICULUM VITÆ

Francesco Brenti

## PERSONAL INFORMATION

Born January 30, 1960 in Florence, Italy. Married, no children. Citizenship:Italian.

## EDUCATION

University of Florence, Florence, Italy Laurea (Magna Cum Laude)	November 1978 - October 1982
Massachusetts Institute of Technology Ph.D. (R. Stanley, thesis advisor)	September 1984 - May 1988

## EMPLOYMENT

1982–1984	Fellow Istituto Nazionale di Alta Matematica Francesco Severi, Rome, Italy
1984–1986	Teaching Assistant Massachusetts Institute of Technology, Cambridge, Massachusetts, U.S.A.
1986–1988	Research Assistant Massachusetts Institute of Technology, Cambridge, Massachusetts, U.S.A.
1988–1991	T. H. Hildebrandt Research Assistant Professor University of Michigan, Ann Arbor, Michigan, U.S.A.
1991-1992	Postdoctoral Fellow Mittag-Leffler Institute, Djursholm, Sweden
1992–1997	Associate Professor (tenured since 1995) University of Perugia, Perugia, Italy
1997-2013	Tenured Associate Professor University of Rome “Tor Vergata”, Rome, Italy
2013-	Professor University of Rome “Tor Vergata”, Rome, Italy

## VISITING POSITIONS

9-10/1992	Visiting Assistant Professor
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6/1993 Hebrew University of Jerusalem, Jerusalem, Israel  
 Visiting Professor  
 University of Marne-la-Vallee, Noisy-le-Grand, France  
 9/1993 Visiting Associate Professor  
 Royal Institute of Technology, Stockholm, Sweden  
 1994-1995 Member  
 Institute for Advanced Study, Princeton, New Jersey, U.S.A.  
 1996-1997 Member  
 Mathematical Sciences Research Institute, Berkeley, California, U.S.A.  
 5/1998 Visiting Associate Professor  
 Royal Institute of Technology, Stockholm, Sweden  
 6/1998 Member  
 Mathematical Research Centre, Aarhus, Denmark  
 8-9/2000 Visiting Professor  
 Bar-Ilan University, Ramat-Gan, Israel  
 1-6/2001 Visiting Professor in Applied Mathematics  
 Massachusetts Institute of Technology, Cambridge, Massachusetts, U.S.A.  
 9/2001 Visiting Professor  
 Bar-Ilan University, Ramat-Gan, Israel  
 1-6/2005 Member  
 Mittag-Leffler Institute, Djursholm, Sweden  
 1-4/2008 Member  
 Mathematical Sciences Research Institute, Berkeley, California, U.S.A.  
 1-4/2020 Member  
 Mittag-Leffler Institute, Djursholm, Sweden

#### INVITED TALKS (selected)

Fifth Haifa Matrix Theory Conference, Technion, Haifa, Israel 1/2 - 4, 1989;

Capital City Conference on Combinatorics and Theoretical Computer Science, George Washington University, Washington, D.C., U.S.A., 5/22 - 26, 1989;

Combinatorics Seminar, Université du Quebec a Montreal, Montreal, Canada, 4/27/1990;

Algebraic Combinatorics Seminar, University of Waterloo, Canada, 6/6/1990;

Combinatorics Seminar, Steklov Mathematical Institute, St. Petersburg, Russia, 4/25/1992;

Kombinatorik Conference, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 11/1-7,1992.

Combinatorial Convexity and Algebraic Geometry Conference, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 3/28-4/3,1993;

Jerusalem Combinatorics 93 Conference, Hebrew University of Jerusalem, Jerusalem, Israel, 5/9-17,1993.

US-Italian Workshop on Hilbert Functions and Related Topics, Mathematical Sciences Institute, Ithaca, NY, U.S.A., 10/28-30,1993;

Combinatorics Seminar, Massachusetts Institute of Technology, Cambridge, MA, U.S.A., 11/3/1993;

National Scientific Culture Week, University of Perugia, Perugia, Italy, 4/18/1994;

Geometry and Combinatorics Conference, University of Pisa, Pisa, Italy, 6/20-24, 1994;

Algebraic Combinatorics Conference in honor of Adriano M. Garsia, Taormina, Italy, 7/26-29, 1994.

International Workshop on Total Positivity and Applications, Jaca, Spain, 9/26-30, 1994. (Series of three plenary lectures.)

Members' Seminar, Institute for Advanced Study, Princeton, NJ, U.S.A., 11/21/1994.

Combinatorics and the Symmetric Group Conference, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 1/15-21,1995.

Department of Mathematics Colloquium, George Washington University, Washington, D.C., U.S.A., 2/10/1995;

Department of Mathematics Colloquium, Haverford College, Haverford, PA, U.S.A., 2/24/1995;

Algebra Seminar, Rutgers University, New Brunswick, NJ, U.S.A., 3/24/1995;

Algebraic Geometry Seminar, University of Chicago, Chicago, IL, U.S.A., 3/29/1995;

Department of Mathematics Colloquium, Michigan State University, East Lansing, MI, U.S.A., 3/30/1995;

Colloque International "Groupes et Algebres", Université Pierre et Marie Curie (Paris VI), Paris, France, 6/22-23, 1995;

Algebraic Groups and Representations Conference, Cortona, Italy, 9/10-15, 1995;

A.M.S. Special Session on Representation Theory and Combinatorics, Boston, MA, U.S.A., 10/7-8, 1995;

Department of Mathematics Colloquium, Universität Bielefeld, Bielefeld, Germany, 11/3/1995;

Combinatorics Conference, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 1/14-20, 1996;

37ieme Seminaire Lotharingien de Combinatoire “Rota in Lotharingia”, Institut de Recherche Mathématique Avancée, Strasbourg, France, 5/9-11, 1996;

Eighth Formal Power Series and Algebraic Combinatorics Conference, University of Minnesota, Minneapolis MN, U.S.A., 6/25-29, 1996;

Enumeration and Partially Ordered Sets Workshop, Mathematical Sciences Research Institute, Berkeley CA, U.S.A., 10/14-18, 1996;

Workshop on Convex Polytopes, Hebrew University of Jerusalem, Jerusalem, Israel, 12/29/1996-1/2/1997;

European Research Conference on Algebra and Discrete Mathematics, San Feliu de Guixols, Spain, 9/27-10/2, 1997;

Conference of the National Group for Algebraic and Geometric Structures and their Applications, University of Perugia, Perugia, Italy, 11/6-8, 1997;

Conference in honor of David Buchsbaum: Homological Methods in Commutative Algebra and Algebraic Geometry, University of Genova, Genova, Italy, 6/1-5, 1998;

Conference on Combinatorial Methods in Representation Theory, Research Institute for the Mathematical Sciences, Kyoto, Japan, 7/20-24, 1998;

Geometric and Topological Combinatorics Conference, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 4/11-17, 1999;

A.M.S. Special Session on Algebraic and Geometric Combinatorics, Providence, RI, U.S.A., 10/2-3, 1999;

Joint Basel-Freiburg-Strasbourg Seminar, University of Basel, Basel, Switzerland, 12/17/1999;

Combinatorics of Lie Type Conference, University of Wisconsin, Madison WI, U.S.A., 6/16-21, 2000;

Department of Mathematics Colloquium, University of Minnesota, Minneapolis, MN, U.S.A., 2/22/2001;

Combinatorics Seminar, Massachusetts Institute of Technology, Cambridge, MA, U.S.A., 3/14/2001;

A.M.S. Special Session on Algebraic and Topological Combinatorics, Williamstown, MA, U.S.A., 10/13-14, 2001;

Topics in Young Diagrams and Representation Theory Workshop, Research Institute for the Mathematical Sciences, Kyoto, Japan, 11/6-9, 2001; (Series of two plenary lectures.)

49ieme Seminaire Lotharingien de Combinatoire, Ellwangen, Germany, 10/21-23, 2002; (Series of three plenary lectures.)

Topological and Geometric Combinatorics Conference, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 4/6-12, 2003;

A.M.S. Special Session on Algebraic and Topological Combinatorics, New York, NY, U.S.A., 4/12-13, 2003;

Spring School on Combinatorics, Topology and Convexity: their meeting points, Institute for Advanced Studies, Jerusalem, Israel, 4/27-5/5, 2003; (Series of two plenary lectures.)

Combinatorial stratifications in geometry and topology Workshop, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 11/2-7, 2003;

Department of Mathematics Colloquium, Philipps-Universität Marburg, Marburg, Germany, 11/10/2003;

51ieme Seminaire Lotharingien de Combinatoire, Ottrott, France, 3/29-31, 2004;

Retrospectives in Combinatorics honoring Richard Stanley's 60th Birthday, Massachusetts Institute of Technology, Cambridge, MA, U.S.A., 6/22-26, 2004;

Combinatorial Commutative Algebra Workshop, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 7/4-10, 2004;

Summer School on Combinatorics of Groups and Algebras, Centre International de Rencontres Mathematiques, Luminy, France, 7/11-16, 2004; (Series of four plenary lectures.)

C.M.S. Special Session on Algebraic Combinatorics, Montreal, Canada, 12/11-13, 2004;

Discrete Mathematics Seminar, Universität Wien, Vienna, Austria, 1/11/2005;

Conference on Geometric and Algebraic Combinatorics, Anogia Academic Village, Anogia, Greece, 8/21-26, 2005;

Conference in honor of Guido Zappa's 90th Birthday, University of Florence, Florence, Italy, 12/9, 2005;

Department of Mathematics Colloquium, Cornell University, Ithaca, NY, U.S.A., 3/30/2006;

Combinatorics 2006, Ischia, Italy, 6/26-30, 2006; (Plenary address.)

A.M.S. Special Session on Combinatorial Representation Theory, Topological Combinatorics and interactions between them, Bloomington, IN, U.S.A., 4/5-6, 2008;

Festive Combinatorics in honor of Anders Björner's 60th birthday, Royal Institute of Technology (KTH), Stockholm, Sweden, 5/28-30, 2008;

Billerafest 2008, Cornell University, Ithaca, NY, U.S.A., 6/13-15, 2008;

Nonnegativity is a quantum phenomenon Workshop, Oberwolfach Mathematical Institute, Oberwolfach, Germany, 3/1-7, 2009;

A.M.S. Special Session on Rings, Algebras, and Varieties in Combinatorics, Raleigh, NC, U.S.A., 4/4-5, 2009;

National Meeting on Modern Algebra, Istituto Nazionale di Alta Matematica, Rome, Italy, 5/24-28, 2010;

Quasisymmetric Functions Workshop, Banff International Research Station, Banff, Canada, 11/14-19, 2010;

Aurora Borealis Combinatorics Workshop, Abisko Scientific Research Station, Abisko, Sweden, 12/1-5, 2010;

Centre for Mathematics Colloquium, Universidade de Coimbra, Coimbra, Portugal, 1/27/2011;

Summer School on Algebraic and Enumerative Combinatorics, Casa de Camilo, S. Miguel de Seide, Portugal, 7/2-6, 2012; (Series of five instructional lectures.)

ICTP-IPM Conference in Combinatorics and Graph Theory, International Centre for Theoretical Physics, Trieste, Italy, 9/10-14, 2012;

Combinatorial Methods in Topology and Algebra Conference, Cortona, Italy, 9/9-13, 2013;

Stanley@70 Conference, Massachusetts Institute of Technology, Cambridge, MA, U.S.A., 6/23-27, 2014;

Journées de Combinatoire de Lyon 2015, Université Claude Bernard Lyon 1, Villeurbanne, France, 11/24-26, 2015;

Coloquio de Matematicas, Universidad de Chile, Santiago, Chile, 10/25/2017;

Algebraic Combinatorics in Ancona, Ancona, Italy, 6/13-15, 2018;

Combinatorics Seminar, University of Miami, Miami, FL, U.S.A., 2/18/2019;

Combinatorics Seminar, Massachusetts Institute of Technology, Cambridge, MA, U.S.A., 2/22/2019;

32nd Meeting of the Irish Mathematical Society, National University of Ireland, Galway, Ireland, 9/5-6, 2019;

Algebraic Combinatorics in Genova, University of Genova, Genova, Italy, 9/11-13, 2019;

Unimodality, Log-concavity and beyond, Institut Mittag-Leffler, Djursholm, Sweden, 3/16-20, 2020;

Algebraic Combinatorics of the Symmetric Groups and Coxeter Groups, Grand Hotel San Michele, Cetraro, Italy, 7/5-9, 2021.

## DOCTORAL STUDENTS

Riccardo Biagioli	University of Rome “La Sapienza”, Rome, Italy	2002
Fabrizio Caselli	University of Rome “La Sapienza”, Rome, Italy	2002
Federico Incitti	University of Rome “La Sapienza”, Rome, Italy	2003
Mario Marietti	University of Rome “La Sapienza”, Rome, Italy	2003
Michela Pagliacci	University of Trento, Trento, Italy	2003
Alessandro Conflitti	University of Rome “Tor Vergata”, Rome, Italy	2004
Corrado Bosca	University of Rome “La Sapienza”, Rome, Italy	2011
Alfonso Pesiri	University of Rome “Tor Vergata”, Rome, Italy	2011
Pietro Mongelli	University of Rome “La Sapienza”, Rome, Italy	2012
Angela Carnevale	University of Rome “Tor Vergata”, Rome, Italy	2014
Paolo Sentinelli	University of Rome “Tor Vergata”, Rome, Italy	2014
Viola Siconolfi	University of Rome “Tor Vergata”, Rome, Italy	2020

## PROFESSIONAL ACTIVITIES

Program Committee, 17th International Conference on Formal Power Series and Algebraic Combinatorics, 2005;

Program Committee, 22th International Conference on Formal Power Series and Algebraic Combinatorics, 2010;

Program Committee, 29th International Conference on Formal Power Series and Algebraic Combinatorics, 2017;

Program Committee (co-chair), 33rd International Conference on Formal Power Series and Algebraic Combinatorics, 2021.

## EDITORIAL BOARDS

Seminaire Lotharingien de Combinatoire, 1997-;

European Journal of Combinatorics, 2008-;

Algebraic Combinatorics, 2020-.

## HONORS AND AWARDS

Research grant by the National Science Foundation for the summers of 1989 and 1990 (Grant # DMS 8903246);

Research grant by the Commission of the European Communities for the period 1/1/1994-6/30/1996 (Contract # ERB CHRX-CT93-0400, Human Capital and Mobility: Networks) (coordinator);

Research in Pairs grants by the Mathematisches Forschungsinstitut Oberwolfach for the periods 2/2-24 1996, 10/12-25 1997, 2/7-27 1999, 2/3-23 2013;

Research grant by the European Commission for the period 9/1/2002-8/31/2005 (Contract # HPRN-CT-2001-00272, Improving Human Research Potential: Research Training Networks) (coordinator of the Rome team);

Member, Sigma Xi, 1988-;

Foundation Fellow, Institute of Combinatorics and its Applications.

## PUBLISHED BIOGRAPHICAL DATA

*Marquis' Who's Who in the Midwest*, 23rd edition (1992).

*Marquis' Who's Who in the World*, 12th edition (1995).

## RESEARCH INTERESTS

Algebraic Combinatorics. Kazhdan-Lusztig Theory. Theory of Symmetric Functions. Total Positivity.