Giuseppe Pareschi

CURRICULUM VITAE

• Born in Ferrara (Italy) on 13.11.1960

Present position

Professor of Mathematics, University of Roma, Tor Vergata (Italy) (Since 2001)

Education

1984: *Laurea* in Mathematics, University of Ferrara (Italy).
1991: PhD in Mathematics, University of Milano (Italy).

Employement

1992-'95: Researcher, University of Ferrara
1995-'99: Researcher, University of Roma "La Sapienza"
1999-2001: Associate Professor, University of Roma, Tor Vergata
2001-: Professor , University of Roma, Tor Vergata

Recent/future invited talks at conferences

• *Algebraic Geometry*, Ann Arbor (USA), April 2013
• *Syzygies in Algebraic Geometry, with an exploration of a connection with String Theory*, Banff (canada) August 12 -17, 2012
• *Giornate di Geometria III*, University of Pavia (italy), March 8 - 9, 2012
• *Workshop on periods and moduli*, Korean Institute for Advances Sudies, Seoul (Korea), Sept. 20-22, 2011
• *Computational aspects of birational geometry*, Korean Advanced Institute of Science and Technology, Daejeon (Korea) March 29-31, 2011
• *Classical Algebraic Geometry*, Istituto Nazionale di Alta Matematica, Rome (Italy), Feb 9-11, 2011
• *Classical Algebraic Geometry Today*, Mathematical Sciences research Institute (Berkeley, USA), January 26-30, 2009.
• *Seshadri constants in Algebraic Geometry* , Barcelona (Spain), November 27-30, 2008
• *Algebraic Geometry,* Bucharest (Romania) (June 30 -july 5, 2008)
• *Curves, abelian varieties, and their interactions*, Athens (Georgia, USA), 2007
• *Meeting on Algebraic Varieties*, Rome 2003
• *Algebraic Topology, Algebraic Geometry and Commutative Algebra*, Mamaya (Romania), 2002
• *Projective Geometry*, Ferrara (Italy), 2002

Recent seminar talks and short visits

2012: University of Cambridge (UK)
2011: University of Torino (Italy)
2010: University of Roma "La Sapienza" (Italy)
2007: University of Milano (Italy) , University of di Genova (Italy) , University of Bologna (Italy) , University of Pavia (Italy)
2006: University of Pisa (Italy) , University of Pavia (Italy)
2005: Universitat Politecnica de Catalunya (Barcelona, Spain), University of Chicago (USA)
2004: University of Roma (La Sapienza) (Italy), Université de Paris, Jussieu (France)
2003: University of Roma "Tre" (Italy) , University of Bologna (Italy), University of Barcelona (Spain)
2002: University of Milano (Italy), University of l'Aquila (Italy)

Courses at research schools

• School on *Algebraic geometry,* Istututo Superior Tecnico Lisboa (Portugal), September 2009 (One week scoool). Lecturers: G. Pareschi e M. Popa.
• Spring School on *Fourier-Mukai functors, regularity on abelian varieties, and generic vanishing theorems.* University of Michigan (Ann Arbor, USA), May 4-8. Main lecturers: Donu Arapura, Giuseppe Pareschi and Mihnea Popa.

• *P.R.A.G.M.A.T.I.C.* Summer school. Catania (Italy) 2007. Three weeks school on Fourier-Mukai transforms, Generic Vanishing and applications. Lecturers: G.Pareschi and M.Popa.
• *The Geometry of the Fourier-Mukai functor* Levico Terme (Italy), 2003. One week school. Lecturers: C.Hacon, G. Pareschi, A. Polishchuk.

PhD Students
• Marcello Paris (PhD in Mathematics of Università di Roma, La Sapienza). Year: 1999. Thesis on: *The Petri property for curves on abelian surfaces.*
• Sofia Tirabassi (PhD in Mathematics, Università di Roma Tre). Year: 2011. Thesis on; *Syzygies of Kummer Varieties and Birational Geometry of Irregular Varieties).*

Papers

(1) Some basic results on irregular varieties via the Fourier-Mukai transform, to appear on "Current developments in Algebraic Geometry" (L. Caporaso, J. McKernan, M. Mustata, M.Popa eds), MSRI publications, Cambridge University Press (2012)

(2) Local positivity, multiplier ideals, and syzygies of abelian varieties, Algebra and Number Theory 5 (2011), 185–196 (with. R. Lazarsfeld and M. Popa)

(3) Hyperplane sections of abelian surfaces, Journal of Algebraic Geometry 21 (2012), 183-200 (with E. Colombo e P. Frediani)

(4) On the bicanonical map of irregular varieties, to appear on Journal of Algebraic Geometry (with M.A. Barja, M. Lahoz e J.C. Naranjo)

(5) GV-sheaves, Fourier-Mukai transform, and generic vanishing, American Journal of Mathematics 133 (2011) 235 –271 (with M.Popa)

(6) Regularity on abelian varieties, III: relationship with Generic Vanishing and applications, in Grassmannians, Moduli Spaces and Vector Bundles, (D.A. Ellwood and E. Previato eds) Clay Math. Institute Proceedings, AMS (2011) (with M. Popa)

(7) Strong generic vanishing and a higher dimensional Castelnuovo-de Franchis inequality, Duke Mathematical Journal 150 (2009) 269–285 (with M. Popa)

(8) Castelnuovo theory and the geometric Schottky problem, J. Reine Angew. Math. 615 (2008) 25–44 (with M.Popa)

(9) Generic vanishing and varieties representing minimal cohomology classes on abelian varieties, Mathematische Annalen 340, n.1 (2008) 209-222 (with M.Popa)

(10) M-regularity and the Fourier-Mukai transform, Pure and Applied Mathematics Quarterly 4, n.3, (2008), 587-611. F. Bogomolov Special Issue (with M.Popa)

(11) Regularity on abelian varieties, II: basic results on linear series and defining equations, Journal of Algebraic Geometry 13 (2004) 167-193 (with M.Popa)

(12) Regularity on abelian varieties, I, Journal of the American Mathematical Society 16 (2003), 285-302 (with M.Popa)

(13) Syzygies of abelian varieties, Journal of the American Mathematical Society 13 (2000), 651-664

(14) Picard bundles and syzygies of canonical curves, in "Commutative Algebra and Algebraic Geometry" (F. van Oeystayen, editor) Lecture notes in pure and applied mathematics 206, M. Dekker (1999) 227-236

(15) Canonical ring of a curve is Koszul: A simple proof. Illinois Journal of Mathematics, 41 (1997) 266-271 (with B. Purnaprajna)

(16) Gaussian maps and multiplication maps on certain projective varieties, Compositio Mathematica 98 (1995) 219-268

(17) Pencils of minimal degree on curves on a K3 surface, J. Reine Angew. Math. 460 (1995) 15-36 (with C. Ciliberto)

(18) A proof of Lazarsfeld's theorem on curves on K3 surfaces, J. of Algebraic Geometry 4 (1995) 195-200

(19) Koszul algebras associated to adjunction bundles, Journal of Algebra 157 (1993) 161-169

(20) Exceptional linear systems on curves on Del Pezzo surfaces, Mathematische Annalen 291 (1991) 17-38

(21) Components of the Hilbert scheme of smooth space curves with the expected number of moduli, Manuscripta Matematica. 63 (1989) 1-16

(22) On the regular genus of PL manifolds, Discrete Mathematics 82 (1990) 165-180 (with R. Chiavacci)

(23) On linearly normal space curves, Mathematische Zeitschrift 198 (1988) 73-82 (with A. Dolcetti)

(24) Curve aritmeticamente Buchsbaum su superfici di grado 3 e 4 dello spazio proiettivo, Annali dell'Università di Ferrara - Sez. VII - Sc. Mat. - Vol. XXXIII (1987), 219-235