

## Giuseppe Pareschi

### CURRICULUM VITAE

- Born in Ferrara (Italy) on 13.11.1960

#### Present position

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

#### Education

1984: *Laurea* in Mathematics, Università di Ferrara (Italy).

1991: PhD in Mathematics, Università di Milano (Italy).

#### Employement

1992-'95: Researcher, Università di Ferrara

1995-'99: Researcher, Università di Roma "La Sapienza"

1999-2001: Associated Professor, Università di Roma, Tor Vergata

2001-: Professor, Università di Roma, Tor Vergata

#### Recent invited talks at conferences

- *Classical Algebraic Geometry Today*, M.S.R.I. (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

2007: Università di Milano, Università di Genova, Università di Bologna, Università di Pavia

2006: Università of Pisa, Università of Pavia

2005: Universitat Politecnica de Catalunya (Barcelona), University of Chicago

2004: Università di Roma (La Sapienza), Université de Paris, Jussieu

2003: Università di Roma Tre, Università di Bologna, Universitat de Barcelona

2002: Università di Milano, Università dell'Aquila

#### Research schools

- School on *Algebraic geometry*, Istituto Superior Tecnico, September 2009 (One week school). 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), 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.

#### Doctoral 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). Will finish in 2011.

#### Published papers

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

- (2) *Regularity on abelian varieties, III: relationship with Generic Vanishing and applications*, to appear on the *Grassmannians, Sheaves and Moduli*, (D.A. Allcock, E. Previato, M. teixidor-i-Bigas eds) Proceedings Volume of the Clay Math. Institute Workshop, Oct. 6-10 2006, arXiv:0802.1021v1[math.AG] (with M. Popa)
- (3) *GV-sheaves, Fourier-Mukai transform, and generic vanishing*, to appear on American Journal of Mathematics, preprint math.AG/0608127, (with M.Popa)
- (4) *Castelnuovo theory and the geometric Schottky problem*, J. Reine Angew. Math. 615 (2008) 25–44 (with M.Popa)
- (5) *Generic vanishing and varieties representing minimal cohomology classes on abelian varieties*, Math. Ann. 340, n.1 (2008) 209-222 (with M.Popa)
- (6) *Regularity on abelian varieties, II: basic results on linear series and defining equations*, J. of Alg. Geom. 13 (2004) 167-193 (with M.Popa)
- (7) *Regularity on abelian varieties, I*, J. Amer. Math. Soc. 16 (2003), 285-302 (with M.Popa)
- (8) *Syzygies of abelian varieties*, J. Amer. Math. Soc. 13 (2000), 651-664
- (9) *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
- (10) *Canonical ring of a curve is Koszul: A simple proof*. Illinois J. of Math., 41 (1997) 266-271 (with B. Purnaprajna)
- (11) *Gaussian maps and multiplication maps on certain projective varieties*, Compositio Math. 98 (1995) 219-268
- (12) *Pencils of minimal degree on curves on a K3 surface*, J. Reine Angew. Math. 460 (1995) 15-36 (with C. Ciliberto)
- (13) *A proof of Lazarsfeld's theorem on curves on K3 surfaces*, J. of Alg. Geom. 4 (1995) 195-200
- (14) *Koszul algebras associated to adjunction bundles*, J. of Alg. 157 (1993) 161-169
- (15) *Exceptional linear systems on curves on Del Pezzo surfaces*, Math. Ann. 291 (1991) 17-38
- (16) *Components of the Hilbert scheme of smooth space curves with the expected number of moduli*, Manuscr. Math. 63 (1989) 1-16
- (17) *On the regular genus of PL manifolds*, Discrete Mathematics 82 (1990) 165-180 (with R. Chiavacci)
- (18) *On linearly normal space curves*, Math. Z. 198 (1988) 73-82 (with A. Dolcetti)
- (19) *Curve aritmeticamente Buchsbaum su superfici di grado 3 e 4 dello spazio proiettivo*, Ann. Univ. Ferrara - Sez. VII - Sc. Mat. - Vol. XXXIII (1987), 219-235

#### Survey papers

- (1) *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)

#### Preprints

- (1) *Hyperplane sections of abelian surfaces*, submitted preprint 0903.2781v1[math.AG] (with E. Colombo e P. Frediani)
- (2) *On the bicanonical map of irregular varieties*, submitted preprint 0907.4363[math.AG] (with M.A. Barja, M. Lahoz e J.C. Naranjo)
- (3) *On Chen-Hacon's characterization on abelian varieties*, paper for the Proceedings of the Workshop *Classical Algebraic Geometry Today* (MSRI, Berkeley 2009)

#### Other

- (1) *Generic vanishing, gaussian maps, and Fourier-Mukai transform*, preprint, math.AG/0310026