

PERSONAL INFORMATION NAME: Emanuele Pacifici

POSITION Associate Professor (with qualification -“Abilitazione Scientifica Nazionale”- as a full professor) for the area Mat/02 (Algebra), at the Math Department of Università degli Studi di Milano

TITLE Ph.D. in Mathematics

WORK EXPERIENCE

(01.03.2016 - TODAY) Associate Professor for the area Mat/02 (Algebra), at the Math Department of Università degli Studi di Milano

(01.04.2005 - 29.02.2016) Assistant Professor for the area Mat/02 (Algebra), at the Math Department of Università degli Studi di Milano

(01.01.2004 - 31.12.2004) Post-doc. “Gruppi Finiti e Rappresentazioni”, at the Math Department of Università degli Studi di Udine

EDUCATION AND TRAINING

(30.09.2003) Title of Ph.D. in Mathematics, at Università degli Studi di Firenze, with a thesis entitled “On tensor factorization and tensor induction for representations of finite groups”. Supervisors: Prof. C. Casolo, Prof. L.G. Kovacs (Australian National University)

(23.04.1999) Laurea (M.Sc.) in Mathematics, with full marks cum laude, at Università degli Studi di Firenze, with a thesis entitled “Orbite di elementi e di caratteri in azioni coprime tra gruppi finiti”. Supervisor: Prof. C. Casolo

(09.1995) Violin diploma, with full marks, at Conservatorio Statale “L. Cherubini” in Firenze

(07.1993) Secondary school diploma, with full marks, at Liceo Ginnasio Statale “Michelangiolo” in Firenze

PERSONAL SKILLS

Mother tongue Italiano

Other languages English (C1), German (A2)

Communication skills	Skills deriving from teaching activity in several courses at B.Sc, M.Sc and Ph.D. level, from seminars and conferences
Organizational/managerial skills	Organization of teaching and research activities. Principal investigator of the Milano unit for the PRIN 2016 project “Teoria dei Gruppi e Applicazioni”
Digital skills	Good knowledge of Office; LaTeX; GAP

ANNEXES: IN THE FOLLOWING PAGES THE DETAILED CV WITH PUBLICATIONS IS ENCLOSED

I authorize the handling of personal information in this curriculum, according to D.Lgs n. 196/03 and following modifications and Regulations EU 679/2016 (General Regulations concerning Data Protection or GRDP) and art. 7 of University Regulations concerning protection of personal information. I authorize, according to D.lgs 14/03/2013 n. 33 concerning transparency, in case of conferment of the position and of the fellowship, the publication of this curriculum in the web site of Università degli Studi di Milano in the section “Amministrazione trasparente”, “Consulenti e collaboratori”.

Date, 20/12/2018

Signature



Curriculum vitae et studiorum

of Emanuele Pacifici

Personal data

I was born in Firenze (Italy) on 17/03/1975. I am married, I have two daughters and a son.

Current position

- I am an associate professor in Algebra, at the Mathematics Department of Università degli Studi di Milano.

Academic qualifications and positions

- 03.2018. I got the “Abilitazione Scientifica Nazionale”, for “professore di prima fascia” (full professor) in Geometry and Algebra.
- 01.2016. I won a competition for a position of associate professor in Algebra (Mat/02) at Università degli Studi di Milano. This position was taken up on 01.03.2016.
- 12.2013. I got the “Abilitazione Scientifica Nazionale”, for “professore di seconda fascia” (associate professor) in Geometry and Algebra.
- 01.2005. I won a competition for a permanent position (“ricercatore universitario”) in Algebra (Mat/02) at Università degli Studi di Milano. This position was taken up on 01.04.2005 and, in 2008, the position was confirmed.
- 11.2003. I won a competition for a post-doc position (“assegno di ricerca”) on the subject “Finite Groups and Representations” at Università degli Studi di Udine. This position was taken up on 01.01.2004, till 31.12.2004.
- 30.09.2003. I got the Ph.D. in Mathematics, at Università degli Studi di Firenze; title of the thesis: *On tensor factorization and tensor induction for representations of finite groups*. Advisors: Prof. C. Casolo, Prof. L.G. Kovács (Australian National University).
- 01.11.1998 - 31.10.1999. I was awarded a grant for students in Mathematics offered by the Italian CNR (“Consiglio Nazionale delle Ricerche”).
- 23.04.1999. I got the “laurea” (M.Sc.) in Mathematics with full marks cum laude, at Università degli Studi di Firenze; title of the thesis: *Orbite di elementi e di caratteri in azioni coprime tra gruppi finiti* (Italian). Advisor: Prof. C. Casolo.

Schools

- In 2004 and 2005, I attended the summer school “Methods for the identification of finite simple groups” in Udine, with Profs. C. Parker, S. Shpectorov, R.M. Solomon.
- In 2000 and 2002, I attended the courses of Algebra (Profs. C. Casolo, L.G. Kovács, A. Lucchini, R.M. Solomon) at the summer school of “Scuola Matematica Interuniversitaria” in Cortona.
- In 1999, I attended the courses of Algebra (Prof. L.G. Kovács) and Algebraic Geometry (Prof. F.O. Shreyer) at the summer school of “Scuola Matematica Interuniversitaria” in Perugia.

Conferences and invitations (selection)

- 17.09.2018 - 21.09.2018. I gave an invited lecture at the “Joint meeting of UMI - SIMAI - PTM”, University of Wroclaw (Poland).
- 05.09.2018 - 07.09.2018. I gave an invited conference (Main speaker) at the international workshop “Group Theory in Florence II, in honor of Professor Guido Zappa”, Dipartimento di Matematica of Università di Firenze.
- 09.10.2017 - 11.10.2017. I was a member of the scientific committee of the international conference “Topics on Groups and their Representations, in honor of Professor Lino di Martino on the occasion of his 70th birthday”, Gargnano sul Garda (BS).
- 29.08.2016 - 02.09.2016. I gave an invited lecture at the “First Joint Meeting Brazil - Italy in Mathematics”, IMPA, Rio de Janeiro (Brazil).
- 14.06.2016. I organized an international workshop on Group Theory and Representations at the Department of Mathematics of the University of Milano.
- 11.2015. I gave an invited lecture at the workshop “Gruppen und topologische Gruppen” in Salerno.
- 20.01.2015 - 23.01.2015. I was a visiting professor at Fitzwilliam College, University of Cambridge (UK), invited by Prof. R.D. Camina. On 21.01 I gave an invited seminar.
- 26.10.2014 - 01.11.2014. I was a visiting professor at Universitat de València (Spain), invited by Prof. Lucia Sanus.
- 18.06.2014 - 20.06.2014. I gave an invited lecture at “Bicocca Workshop in Representation Theory 2014: theoretical and computational aspects”, Università di Milano Bicocca.
- 25.01.2013 - 26.01.2013. I was an organizer of the workshop “Gruppen und topologische gruppen” in Milano.
- 03.10.2012 - 08.10.2012. I gave an invited lecture at the conference “Group Theory, Combinatorics, and Computing” at Florida Atlantic University, Florida, USA.
- 06.2012. I gave an invited lecture at the workshop “Gruppen und topologische Gruppen” in Wien (Austria).
- In 2012 I gave invited seminars at Università di Milano Bicocca, Università di Firenze and Università dell’Aquila.
- 23.05.2011 - 01.06.2011. I was a visiting professor at Universitat de València (Spain), invited by Prof. Lucia Sanus. On 31.05 I gave an invited seminar.
- 24.05.2010 - 28.05.2010. I gave an invited lecture at the INdAM conference “Incontro Nazionale di Algebra Moderna” in Roma.
- 15.02.2010 - 26.02.2010. I was a visiting professor at Technion in Haifa (Israel), invited by Prof. D. Chillag. On 18.02 I gave an invited seminar.
- 12.2007. I gave an invited lecture at the workshop “Gruppen und Topologische Gruppen” in Wien (Austria).
- 03.2006. I gave a lecture at the conference “Ischia Group Theory 2006 in honour of A. Rhemtulla”.
- 04.10.2005 - 10.12.2005. I was a “Visiting fellow with allowance” at Australian National University (Canberra, Australia).
- 06.2005. I gave an invited lecture at the workshop “Gruppen und topologische Gruppen” in Milano.
- 02.11.2003. I gave an invited lecture at the conference “Groups, Representations and Galois Theory in Honor of Walter Feit” at Yale University, New Haven, USA.

- 10.2002. I gave a lecture at the workshop “Teoria dei gruppi e applicazioni” in Ischia.
- 07.09.2001 - 01.12.2001. I spent this period of my Ph.D. at Australian National University (Canberra, Australia), under the supervision of Prof. L.G. Kovács.

Research interests

Group Theory, in particular: Representation Theory (both ordinary and modular) and Character Theory of finite groups, orbit problems in group actions.

Publications (papers on research journals)

- 1) *Groups whose degree graph has three independent vertices* (with S. Dolfi, K. Khedri), J. Algebra 512 (2018), 66–80.
- 2) *On the character degree graph of solvable groups* (with Z. Akhlaghi, C. Casolo, S. Dolfi, K. Khedri), Proc. Amer. Math. Soc. 146 (2018), 1505–1513.
- 3) *On vanishing class sizes in finite groups* (with M. Bianchi, J. Brough, R.D. Camina), J. Algebra 489 (2017), 446–459.
- 4) *Nonvanishing elements for Brauer characters* (with S. Dolfi, L. Sanus), J. Aust. Math. Soc. 102 (2017), 96–107.
- 5) *Groups whose character degree graph has diameter three* (with C. Casolo, S. Dolfi, L. Sanus), Israel J. Math. 215 (2016), 523–558.
- 6) *Conjugacy classes of finite groups and graph regularity* (with M. Bianchi, R.D. Camina, M. Herzog), Forum Math. 27 (2015), 3167–3172.
- 7) *Zeros of Brauer characters and linear actions of finite groups: Small primes* (with S. Dolfi), J. Algebra 399 (2014), 343–357.
- 8) *Incomplete vertices in the prime graph on conjugacy class sizes of finite groups* (with C. Casolo, S. Dolfi, L. Sanus), J. Algebra 376 (2013), 46–57.
- 9) *On the regularity of a graph related to conjugacy classes of groups* (with M. Bianchi, M. Herzog, G. Saffirio), European J. Combin. 33 (2012), 1402–1407.
- 10) *Groups whose prime graph on conjugacy class sizes has few complete vertices* (with C. Casolo, S. Dolfi, L. Sanus), J. Algebra 364 (2012), 1–12.
- 11) *Zeros of Brauer characters and linear actions of finite groups* (with S. Dolfi), J. Algebra 340 (2011), 104–113.
- 12) *On the vanishing prime graph of finite groups* (with S. Dolfi, L. Sanus, P. Spiga), J. London Math. Soc. 82 (2010), 167–183.
- 13) *Groups whose vanishing class sizes are not divisible by a given prime* (with S. Dolfi, L. Sanus), Arch. Math. (Basel) 94 (2010), 311–317.
- 14) *On the vanishing prime graph of solvable groups* (with S. Dolfi, L. Sanus, P. Spiga), J. Group Theory 13 (2010), 189–206.
- 15) *Finite groups with real conjugacy classes of prime size* (with S. Dolfi, L. Sanus), Israel J. Math. 175 (2010), 179–189.
- 16) *Non-vanishing elements of finite groups* (with S. Dolfi, G. Navarro, L. Sanus, P.H. Tiep), J. Algebra 323 (2010), 540–545.
- 17) *On the orders of zeros of irreducible characters* (with S. Dolfi, L. Sanus, P. Spiga), J. Algebra 321 (2009), 345–352.
- 18) *Finite groups with real-valued irreducible characters of prime degree* (with S. Dolfi, L. Sanus), J. Algebra 320 (2008), 2181–2195.

- 19) *Groups whose nonlinear irreducible characters separate element orders or conjugacy class sizes* (with M. Bianchi, D. Chillag), Arch. Math. (Basel) 90 (2008), 1–13.
- 20) *Character degree graphs that are complete graphs* (with M. Bianchi, D. Chillag, M.L. Lewis), Proc. Amer. Math. Soc. 135 (2007), 671–676.
- 21) *A note on finite groups with few values in a column of the character table* (with M. Bianchi, D. Chillag), Rend. Sem. Mat. Univ. Padova 115 (2006), 161–164.
- 22) *On the structure of induced modules and tensor induction for group representations*, Rend. Sem. Mat. Univ. Padova 115 (2006), 71–84.
- 23) *On tensor induction for representations of finite groups*, J. Algebra 288 (2005), 287–320.
- 24) *On the number of anisotropic simple submodules in modules with a form*, Arch. Math. (Basel) 84 (2005), 1–10.
- 25) *On tensor factorisation for representations of finite groups*, Bull. Aust. Math. Soc. 69 (2004), 161–171.

Publications (papers in conference proceedings)

- 1) *On zeros of characters of finite groups* (with S. Dolfi, L. Sanus), Springer Proceedings in Mathematics and Statistics, to appear.
- 2) *On the regularity of a graph related to conjugacy classes of groups: Small valencies* (with M. Bianchi, M. Herzog) in Group Theory, Combinatorics, and Computing, Contemporary Math. 611 (2014), 1–7.

Teaching (at Università degli Studi di Milano)

Academic Year 2018/2019

- Course of Algebra 1 for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.
- *Esercitazioni* (basic) and lectures (basic and advanced) of *Teoria delle Rappresentazioni* for the laurea magistrale in Matematica and for the master ALGaNT. (Lectures in English.)

Academic Year 2017/2018

- Course of Algebra 1 for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.
- *Esercitazioni* (basic) and lectures (basic and advanced) of *Teoria delle Rappresentazioni* for the laurea magistrale in Matematica and for the master ALGaNT. (Lectures in English.)

Academic Year 2016/2017

- Course of Algebra 1 for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.
- *Esercitazioni* (basic) and lectures (basic and advanced) of *Teoria delle Rappresentazioni* for the laurea magistrale in Matematica and for the master ALGaNT. (Lectures in English.)

Academic Year 2015/2016

- Course of *Matematica e Statistica - Turno 1* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.

- Course of *Istituzioni di Matematica e Statistica - Modulo di Probabilità e Statistica Matematica* for the laurea triennale in Scienze Naturali.

Academic Year 2014/2015

- Course of *Matematica e Statistica - Turno 1* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.

Academic Year 2013/2014

- Course of *Matematica e Statistica - Turno 1* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.

Academic Year 2012/2013

- Course of *Matematica e Statistica - Turno 1* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- *Esercitazioni* (basic) and lectures (advanced) of *Teoria delle Rappresentazioni* for the laurea magistrale in Matematica and for the master ALGaNt. (Lectures in English.)

Academic Year 2011/2012

- Course of *Matematica e Statistica - Turno 1* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- *Esercitazioni di Algebra 2* for the laurea triennale in Matematica.
- Lectures (advanced) of *Teoria delle Rappresentazioni* for the laurea magistrale in Matematica and for the master ALGaNt. (Lectures in English.)

Academic Year 2010/2011

- Course of *Matematica* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- *Esercitazioni* (basic) and lectures (advanced) of *Teoria delle Rappresentazioni* for the laurea magistrale in Matematica and for the master ALGaNt - Algebra, Geometry and Number Theory. (Lectures in English.)

Academic Year 2009/2010

- Course of *Matematica* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- *Esercitazioni di Algebra 1* for the laurea triennale in Matematica.
- Course of *Algebra 2* for the laurea triennale in Matematica.

Academic Year 2008/2009

- Course of *Matematica* (64 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- Course of *Teoria dei Gruppi I* for the laurea magistrale in Matematica.
- Course of *Algebra II* for the laurea triennale in Matematica.

Academic Year 2007/2008

- Course of *Matematica* (60 hours) for the laurea triennale in Scienze e Tecnologie Agrarie (affidamento).
- Course of *Introduzione alle Equazioni Differenziali* (12 hours) for the Ph.D. School in “Innovazione Tecnologica per le Scienze Agro-Alimentari e Ambientali”.
- Course of *Teoria dei Gruppi I* for the laurea magistrale in Matematica.
- *Esercitazioni di Algebra II* for the laurea triennale in Matematica.

Academic Year 2006/2007

- Course of *Matematica* (60 hours) for the “laurea triennale in Scienze e Tecnologie Agrarie” (B.Sc. in Agricultural Sciences and Technologies) (affidamento).
- Course of *Teoria dei Gruppi I* for the “laurea magistrale in Matematica” (M.Sc. in Mathematics).
- Fourteen hours of lectures for the S.I.L.S.I.S. courses (“Classe 59A, VIII Ciclo”, 1st year).
- *Esercitazioni di Algebra II* for the laurea triennale in Matematica.

Academic Year 2005/2006

- Two courses of *Azzeramento* for the “laurea triennale in Matematica” (B.Sc. in Mathematics).
- *Esercitazioni di Algebra II* for the laurea triennale in Matematica.

Other teaching activities and institutional duties for the “Collegio Didattico”

- 20.12.2018. I was a member of an examination board for awarding the Ph.D. in Mathematics, at Universitat Jaume I, Castellon de la Plana (Spain).
- Starting with the 29th cycle (2013–2014), I am a member of the “Collegio dei Docenti del Dottorato in Scienze Matematiche” of Università degli Studi di Milano.
- Since 2012, I am a member of the “commissione prova finale” (a board of “Consiglio di Coordinamento Didattico per le Scienze Matematiche” of Università degli Studi di Milano).
- I am one of the tutors for the first-year students of the laurea triennale in Matematica of Università degli Studi di Milano.
- In 2015, 2016 and 2017, I was a member of the “commissione abbandoni” and of the “commissione riordino laurea triennale” (boards of “Consiglio di Coordinamento Didattico per le Scienze Matematiche” of Università degli Studi di Milano).
- 09.2015. I was a member of the examination board for selecting the new Ph.D. students (Dottorato in Scienze Matematiche - 31st cycle) of Università degli Studi di Milano.
- 25.08.2013 - 30.08.2013. I was invited to give a conference and a mini-course at “Incontro Borsisti INdAM 2013” in Perugia.
- 06.06.2011. I was a member of an examination board for awarding the Ph.D. in Mathematics, at Università degli Studi di Bologna.
- I was the advisor of eleven theses for the laurea triennale and four theses for the laurea magistrale in Matematica. I was also the co-advisor of two other theses for the laurea magistrale in Matematica.

Institutional Duties for the Department, funds, miscellany

- For the years 2017–2020 I am a member of the “Giunta del Dipartimento di Matematica” of the University of Milano.
- I am the coordinator of the local unit of Milano in the PRIN “Group theory and applications” 2015.
- In 2013 and 2014, I was awarded a grant by Università di Milano for the “*progetto giovani ricercatori*”.
- I was a participant in the PRIN “Teoria dei gruppi e applicazioni” in 2002, 2005, 2007 and 2009.
- I was the principal investigator of the grant “PUR 2009” for the research project “Gruppi, Semigrupperi e Moduli” at the Mathematics Department of Università di Milano. This project was quoted in the “CHE Excellence Ranking 2010”.
- I am a member of the Australian Mathematical Society.
- I am a member of GNSAGA.
- I serve as a reviewer for the American Mathematical Society (MathSciNet).
- I serve as a referee for several international journals, including the Journal of Algebra.