

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale 01/A3 - Analisi Matematica, Probabilità e Statistica Matematica, settore scientifico-disciplinare MAT/05 - Analisi Matematica presso il Dipartimento di MATEMATICA "FEDERIGO ENRIQUES", (avviso bando pubblicato sulla G.U. n. 53 del 05/07/2019) Codice concorso 4139

**Paolo Giordano
CURRICULUM VITAE**

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	GIORDANO
NOME	PAOLO
DATA DI NASCITA	27, MARZO, 1966

**INSERIRE IL PROPRIO CURRICULUM
(non eccedente le 30 pagine)**

Data

02/08/2019

Luogo

Milano

Curriculum vitae

Address

Name: Paolo Giordano
ORCID: 0000-0001-7653-1017
Address: Sonnenalle 41, 1221, Vienna, Austria
Nationality: Italian
email: paolo.giordano@univie.ac.at
Web site: www.mat.univie.ac.at/~giordap7/
Present position: Senior researcher, Wolfgang Pauli Institute, Vienna

Present research interests

- Nonlinear theories of generalized functions
- Non-Archimedean mathematical analysis
- Mathematical theories of complex systems
- Mathematical modeling of complex systems and their applications
- Foundation of differential geometry
- Transportation modeling and related decision support systems
- Mathematical modeling of urban growth and housing markets

Education

- *University of Bonn*, Ph.D. in Mathematics awarded in December 2009. In the thesis we use methods of non-Archimedean analysis to study non normable infinite dimensional spaces. Title: “Fermat reals: nilpotent infinitesimals and infinite dimensional spaces”. Supervisor Prof. S. Albeverio. Degree "Very good + (0.7)"; overall grade of the promotion "magna cum laude".
- *Università degli Studi di Milano*, M.Sc. in Mathematics. Title: “A model of extended line with actual infinitesimals”. Supervisor Prof. L. Galgani. Degree 110/110 Cum laude.
- Habilitation in mathematical analysis already planned (Habilitationsvortrag) on 18 November 2019 at the University of Vienna.

Academic experiences

Main research activities as principal investigator and awards

- August 2017 - present: project leader of FWF (Austrian Fund for the Promotion of Scientific Research) stand alone research project *Hyperfinite methods for generalized smooth functions*, Wolfgang Pauli Institute, Vienna. Co-applicant and collaborator of the project is Prof. M. Kunzinger (Dep. of Mathematics, University of Vienna, Austria). See [URL](#)
 - The three years project concerns the study of hyperfinite methods for generalized functions, the proof of general theorems for the solutions of singular nonlinear PDE and the study of a Fourier transform that applies to every generalized function.
 - In this project I am the Ph.D. supervisor of A. Mukhammadiev and D. Tiwari at the University of Vienna.
 - The project funding from FWF was of 397'000 Euro.
- December 2012 - present: project leader of FWF stand alone research project *Analysis and Geometry based on generalized numbers*, Dep. of Mathematics, University of Vienna. Co-applicant and collaborator of the project is Prof. M. Kunzinger (Dep. of Mathematics, University of Vienna, Austria). See [URL](#)
 - The four years project concerns the development of a new theory of generalized functions as set-theoretical maps on a non-Archimedean ring of generalized numbers.
 - The project funding from FWF was of 321'000 Euro.
- June 2013 - May 2016: project leader of FWF stand alone research project *Non-Archimedean Geometry and Analysis*, Dep. of Mathematics, University of Vienna (AT). Co-applicants of the project are Prof. M. Kunzinger (Dep. of Mathematics, University of Vienna, Austria) and Prof. V. Benci (Dep. of Mathematics, University of Pisa, Italy). See [URL](#)
 - The three years project concerns the development of the theory of Fermat reals and its applications and the relationships with other branches of Non-Archimedean analysis.
 - In this project I supervised two senior post-docs: L. Luperi Baglini and E. Wu.
 - The project funding from FWF was of 349'000 Euro.
- October 2010 - September 2012: project leader of the research project *Nilpotent Infinitesimals and Generalized Functions*, Dep. of Mathematics, University of Vienna, supported by an FWF Lise Meitner grant. Co-applicant of the project: Prof. M. Kunzinger (Dep. of Mathematics, University of Vienna, Austria). See [URL](#)
 - The project concerned the application of non-Archimedean analysis to generalized functions.
 - The project funding from FWF was of 115'200 Euro.
- June 2006 - July 2009: director, together with A. Vancheri, of the research project *Supporto alle decisioni basato su modello matematico per il problema dei "grandi generatori di traffico"*, Dep. of Mathematics, University of Italian Switzerland. See [URL](#)
 - The project funding from Canton Ticino's administration was of 89'577 Euro.
- February 2005 - June 2009: director of the EC-research project (Marie Curie reintegration grant MERG-CT-2005-014906) *Continuum State Cellular Automata and Random Equations*, Dep. of Mathematics, University of Italian Switzerland.
 - The project funding from SNSF was of 40'000 Euro.
- March 2002 - February 2004: Marie Curie individual fellowship of the European Commission HPMF-CT-2002-01792, *A new approach to differential geometry of spaces of mappings and its applications*, Institute of Applied Mathematics, University of Bonn.

- The project funding from EU was of 140'200 Euro.
- June 2001 - November 2001: DAAD (Deutscher Akademischer Austausch Dienst, German academic exchange service) fellowship at the Dep. of Mathematics of the University of Bonn.

Research activities as co-director

- May 2007 - December 2009: co-director of the SNSF research project *Effects of Neighborhood Choice on Housing Markets: a model based on the interaction between microsimulations and revealed/stated preference modeling*, Dep. of Mathematics, Accademia di architettura, University of Italian Switzerland (CH). Director of the project: Prof. Dr. R. Maggi, Istituto di Ricerche Economiche, University of Italian Switzerland. See [URL](#)
 - In this context I was PhD co-advisor of M. Esmaili.
 - The project funding from SNSF was of 241'650 chf.
- September 2006 - December 2009: co-director of the Swiss National Science Foundation research project *Mathematical modeling of on-line communities*, Dep. of Mathematics, University of Italian Switzerland. Director of the project: Prof. Dr. A. Vancheri. See [URL](#)
 - In this context I was PhD co-advisor of G.L. Ciampaglia.
 - The project funding from SNSF was of 120'800 chf.

Main invited lectures

1. Invited speaker at the conference “Souriau 2019”, May 27-31 2019, Paris-Diderot University; title: “The Grothendieck topos of generalized functions”.
2. Invited talk at Institute for Scientific Interchange (ISI), Turin, 30 November 2016, “MaTryCS - A mathematical theory of complex systems”.
3. Invited plenary lecture at the conference “Algebra, Geometry and Mathematical Physics”, Brno, Czech Republic, September 12-14, 2012; title: “Infinitesimal without Logic”.
4. Invited talks at the University of Pisa, January 21, 2015: title: “Generalized smooth functions”, “Fermat reals”.
5. Invited opening talk at the workshop “Workshop on diffeologies etc”, Aix en Provence, France, June 25 - 27, 2014. Title: “Theory of infinitely near points in smooth manifolds: the Fermat functor”.
6. Invited speaker at the colloquium of the Interdiziplinäre Zentrum für Komplexe Systeme (IZKS, Bonn, Germany), June 2009; title: “Dynamics of cities: A mathematical planning tool for shopping malls”.
7. Invited speaker at the conference VIIth AESOP workshop, Thematic Group on Planning and Complexity, Milan, 22 - 23 February 2008; title: “Interaction Spaces Theory: modeling complex systems with the details of MAS and the mathematics of Synergetics”.

Reviewing activities

I am reviewer for: Advances in Complex Systems, Environmental modelling and software, Physics Letters A, American Mathematical Monthly, Topology proceedings, Arabian Journal of Mathematics.

Teaching activities

- 2018 - present: Ph.D. supervisor of 2 students at the Faculty of Mathematics, University of Vienna, AT.
- 2012 - 2015: research supervisor of 2 senior post-docs, Faculty of Mathematics, University of Vienna, AT.

- 2010 - 2014: teaching of the 1st year master course *Metodi quantitativi per l'analisi del territorio*, Accademia di architettura di Mendrisio, University of Italian Switzerland.
- 2009: co-teaching of the 1st year master course *Metodi quantitativi per l'analisi del territorio*, Accademia di architettura di Mendrisio, University of Italian Switzerland, together with A. Vancheri.
- 2006 - 2009: Ph.D. co-advisor of M. Esmaili and G.L. Ciampaglia.
- 2004 - 2005: lecturer of the courses MATLAB I and Probability I for the researchers of the SNSF research project *Mathematical modeling of urban growth processes: a cellular automata and statistical mechanical based approach*.
- 1999: lecturer of the course *Programming language MATLAB* at the Politecnico di Milano, Italy, Mechanics and Aeronautics Engineering courses.
- 1999 - 2003: teaching assistant, Dep. of Mathematics, Università della Svizzera Italiana.
- 1997 - 1999: lecturer of the 1st year course of Mathematics, Dep. of Economics of the II facoltà di Economia di Novara, Italy.

Publications

In my publications, the order of authors always corresponds to the amount of contribution given in the work. Exceptions to this rule are: **25, 28, 29, 30, 31**, which follow the alphabetical order and an equal contribution can be estimated for each author.

All the following publications have been peer-reviewed and listed in ISI Web of Science, Scopus or DOAJ. Non indexed publications are: **12, 15, 16, 25**.

For the links to these publications, see my home page: www.mat.univie.ac.at/~giordap7/

1. Lecke A., Luperi Baglini L., Giordano P., The classical theory of calculus of variations for generalized functions. *Advances in Nonlinear Analysis* 2017. DOI: <https://doi.org/10.1515/anona-2017-0150>.
2. Luperi Baglini L., Giordano P., The category of Colombeau algebras. *Monatshefte für Mathematik*. 2016 DOI 10.1007/s00605-016-0990-1.
3. Giordano P., Kunzinger M. "Inverse Function Theorems for Generalized Smooth Functions". Invited paper for the Special issue ISAAC - Dedicated to Prof. Stevan Pilipovic for his 65 birthday. Eds. M. Oberguggenberger, J. Toft, J. Vindas and P. Wahlberg, Springer series "Operator Theory: Advances and Applications", Birkhaeuser Basel, 2016. See arXiv 1602.00013.
4. Giordano P., Kunzinger M., A convenient notion of compact set for generalized functions. Accepted in *Proceedings of the Edinburgh Mathematical Society*. See arXiv 1411.7292.
5. Giordano P., Wu E., Calculus in the ring of Fermat reals. Part I: Integral calculus. *Advances in Mathematics* 289 (2016) 888–927. DOI: 10.1016/j.aim.2015.11.021
6. Giordano P., Luperi Baglini L., Asymptotic gauges: Generalization of Colombeau type algebras. *Math. Nachr.* Volume 289, Issue 2-3, pages 247–274, 2016. See arXiv 1408.1585v1.
7. Giordano P., Nigsch E., Unifying order structures for Colombeau algebras. *Math. Nachr.* 288, No. 11–12, 1286–1302, 2015. DOI 10.1002/mana.201400277. See arXiv 1408.1242.
8. Giordano P., Wu E., Categorical framework for generalized functions. Accepted for publication in *Arabian Journal of Mathematics*, 2015. DOI:10.1007/s40065-015-0126-9.
9. Giordano P., Kunzinger M., Vernaev H., Strongly internal sets and generalized smooth functions. *Journal of Mathematical Analysis and Applications*, volume 422, issue 1, 2015, pp. 56-71. DOI: 10.1016/j.jmaa.2014.08.036

10. Vancheri A., Giordano P., Andrey D., Fuzzy logic based modeling of traffic flows induced by regional shopping malls. *Advances in Complex Systems* Vol. 17, N. 3 & 4, 2014, (39 pages). DOI: 10.1142/S0219525914500179.
11. Giordano P., Caputo P., Vancheri A., Fuzzy evaluation of heterogeneous quantities: measuring urban ecological efficiency. *Ecological Modelling* 288, 2014, pp. 112–126. DOI: 10.1142/S0219525914500179
12. Giordano P., Which numbers simplify your problem?. Invited contribution for the volume: *Mathematics without boundaries: surveys in pure mathematics*. T. Rassias and P. Pardalos (Eds.), Springer 2014, XIII, pp. 181–220. See www.springer.com/mathematics/analysis/book/978-1-4939-1105-9
13. Giordano P., Fermat reals: infinitesimals without Logic. *Miskolc Mathematical Notes*, Vol. 14 (2013), No. 2, pp. 407–422. See mat76.mat.uni-miskolc.hu/~mnotes/index.php?page=contents&volume=14&number=2
14. Giordano P., Kunzinger M., New topologies on Colombeau generalized numbers and the Fermat-Reyes theorem. *Journal of Mathematical Analysis and Applications* 399 (2013) 229–238. DOI: 10.1016/j.jmaa.2012.10.005
15. Vancheri A., Giordano P., Caputo P., A 2009 European index of urban metabolism efficiency, in *A new urban metabolism*, J.A. Acebillo, A. Martinelli (eds), Actar, 2013. See searchworks.stanford.edu/view/10196912
16. Esmaceli M., Vancheri A., Giordano P., Modeling housing market dynamics using a multi-agent simulation of participants' cognitive behavior. In L. Diappi (editor) *Emergent phenomena in housing markets: gentrification, housing search, polarization*. Physica-Verlag, 2012, pp. 43–83. See www.springer.com/economics/regional+science/book/978-3-7908-2863-4
17. Giordano P., Kunzinger M., Topological and algebraic structures on the ring of Fermat reals. *Israel Journal of Mathematics*, January 2013, Volume 193, Issue 1, pp. 459–505. DOI: 10.1007/s11856-012-0079-z
18. Giordano P., Fermat-Reyes method in the ring of Fermat reals. *Advances in Mathematics* 228, pp. 862–893, 2011. DOI: 10.1016/j.aim.2011.06.008
19. Giordano P., Infinite dimensional spaces and Cartesian closedness. *Journal of Mathematical Physics, Analysis, Geometry*, vol. 7, No. 3, pp. 225–284, 2011. See www.mathnet.ru/php/archive.phtml?wshow=paper&jrnid=jmag&paperid=514&option_lang=eng
20. Giordano P., The ring of fermat reals, *Advances in Mathematics* 225 (2010), pp. 2050–2075. DOI: 10.1016/j.aim.2010.04.010
21. Giordano P., Infinitesimals without logic, *Russian Journal of Mathematical Physics*, 17(2), pp.159–191, 2010. DOI: 10.1134/S1061920810020032
22. Esmaceli M., Vancheri A., Giordano P., Mathematical and Computational Modeling of Housing Market Dynamics. *Systems Conference, 2010 4th Annual IEEE*, pp. 29 - 34, 2010. DOI: 10.1109/SYSTEMS.2010.5482468
23. Vancheri A., Giordano P., Andrey D., Albeverio S., A model for urban growth processes with continuous state cellular automata, multi-agents and related differential equation. Part 1: Theory. *Environment and Planning B: Planning and Design* 2008, volume 35, issue 4, pages 723–739. DOI: 10.1068/b31080a
24. Vancheri A., Andrey D., Giordano P., Albeverio S., A model for urban growth processes with continuous state cellular automata, multi-agents and related differential equation. Part 2: Computer Simulations. *Environment and Planning B: Planning and Design* 2008, volume 35, pages 863–880. DOI: 10.1068/b31080b
25. Albeverio S., Giordano P., Minazzi F., *Introduzione a Matematica e Filosofia, il problema dei fondamenti oggi*. Atti del convegno di Mendrisio, 16 novembre 2001. PRISTEM/Storia 14–15, 2006. See matematica-old.unibocconi.it/pubblicazioni/notestoria14-15.htm
26. Giordano P., Infinitesimal Differential Geometry, *Acta Mathematica Universitatis Comenianae*, 2004, LXIII, 2, pp. 235–278. See www.emis.de/journals/AMUC/_vol-73/_no-2/_giordano/giordano.html

27. Giordano P., Nilpotent infinitesimals and synthetic differential geometry in classical logic. In Berger, Osswald, and Schuster, editors, “Reuniting the Antipodes - Constructive and Nonstandard Views of the Continuum”. Peer reviewed conference paper: see proceedings of the Symposium in Venice, May 17-22, 1999. Vol. 306 of Synthese Library, Kluwer Academic Publishers, Dordrecht, 2001, pp. 75-92. DOI 10.1007/978-94-015-9757-9_7
28. Bussotti F., Ferretti M., Giordano P. and Mazzali C., A synthetic index to estimate tree condition in the Permanent Monitoring Plots of the CONECOFOR programme, *Annali dell’Istituto Sperimentale per la Selvicoltura*, volume 30, pp. 67-72, 1999.
See www.corpoforestale.it/flex/cm/pages/ServeAttachment.php/L/IT/D/D.c8dc2e20c6ec76375728/P/BLOB%3AID%3D1017
29. Ferretti M., Giordano P. and Mazzali C., Methods of analysis of the Integrated and Combined (I&C) evaluation system. *Annali dell’Istituto Sperimentale per la Selvicoltura*, volume 30, pp. 33-42, 1999.
See www.corpoforestale.it/flex/cm/pages/ServeAttachment.php/L/IT/D/D.c8dc2e20c6ec76375728/P/BLOB%3AID%3D1017
30. Ferretti M., Giordano P. and Mazzali C., Definitions of risk, status and changes in the Permanent Monitoring Plots in Italy – A preliminary attempt. *Annali dell’Istituto Sperimentale per la Selvicoltura*, volume 30, pp. 135-149, 1999.
See www.corpoforestale.it/flex/cm/pages/ServeAttachment.php/L/IT/D/D.c8dc2e20c6ec76375728/P/BLOB%3AID%3D1017
31. Ferretti M., F. Alianiello, S. Allavena, T. Amoriello, E. Amorini, F.A. Biondi, A. Buffoni, F. Bussotti, G. Campetella, R. Canullo, A. Costantini, A. Cutini, G. Fabbio, C. Ferrari, P. Giordano, E. Magnani, A. Marchetto, G. Matteucci, C. Mazzali, G. Mecella, R. Mosello, R. Nibbi, B. Petriccione, E. Pompei, F. Riguzzi, G. Scarascia-Mugnozza, M. Tita, The Integrated and Combined (I&C) Evaluation System – Achievements, Problems and Perspectives. *Annali dell’Istituto Sperimentale per la Selvicoltura*, volume 30, pp. 151-156, 1999.
See www.corpoforestale.it/flex/cm/pages/ServeAttachment.php/L/IT/D/D.c8dc2e20c6ec76375728/P/BLOB%3AID%3D1017

Books

1. Alberverio S., Andrey D., Giordano P., Vancheri A. (Eds.) (2007) *The Dynamics of Complex Urban Systems. An Interdisciplinary Approach*. Springer, Berlin Heidelberg New York. Proceedings of the conference held in Monte Verità (Ascona) 4-6 November 2004, 350 pages, Physica-Verlag Heidelberg.
2. Alberverio S., Giordano P., Vancheri A. (2017) *Modelli e metodi matematici per la dinamica urbana*. To appear in the Unitext series of Springer Verlag Italy.

Contributions to conferences and invited lectures

1. Invited speaker at the conference “Souriau 2019”, May 27-31 2019, Paris-Diderot University; title: “The Grothendieck topos of generalized functions”.
2. Speaker at the conference “MLFTA 18”, University of Torino, July 2018; title: “The Grothendieck topos of generalized functions”.
3. Speaker at the conference “ISAAC 2017”, Linnaeus University (Sweden), August 2017; title: “A Picard-Lindelöf theorem for singular nonlinear PDE”.
4. Invited talk at Institute for Scientific Interchange (ISI), Turin, 30 November 2016, “MaTryCS - A mathematical theory of complex systems”.
5. Speaker at the workshop WING 2016, June 29 – July 3, 2016, University of Innsbruck, Austria. Title: “Some ideas on generalized smooth functions”.

6. Invited speaker at the “Mini-workshop sulle matematiche non-Archimedee”, University of Pisa, January 22, 2015: title: “Reali di Fermat”.
7. Invited talk at the University of Pisa, January 21, 2015: title: “Funzioni lisce generalizzate”.
8. Speaker at the conference “Generalized Functions 2014”, Southampton, UK, September 8 - 12, 2014. Title: “Unifying order structures for Colombeau algebras”.
9. Invited talk at the conference “13th International Conference on p-adic Functional Analysis”, Paderborn, Germany, August 12–16, 2014. Title: “Theory of infinitely near points in smooth manifolds: the Fermat functor”.
10. Invited opening talk at the workshop “Workshop on diffeologies etc”, Aix en Provence, France, June 25 - 27, 2014. Title: “Theory of infinitely near points in smooth manifolds: the Fermat functor”.
11. Speaker at the conference “18th ÖMG Congress and Annual DMV Meeting”, Innsbruck, September 23 – 27, 2013; title: “Theory of infinitely near points in smooth manifolds: the Fermat functor”.
12. Invited speaker at the University of Bonn, May 28, 2013; title: “Generalized functions as a category of smooth set-theoretical maps”.
13. Speaker at the conference “9th International ISAAC Congress”, August 5-9, 2013, Krakow, Poland; title: “Generalized functions as a category of smooth set-theoretical maps”.
14. Speaker at the conference “XXII St. Petersburg Summer Meeting in Mathematical Analysis”, St. Petersburg, Russia, June 25-30, 2013; title: “Generalized functions as a category of smooth set-theoretical maps”.
15. Invited plenary lecture at the conference “Algebra, Geometry and Mathematical Physics”, Brno, Czech Republic, September 12-14, 2012; title: “Infinitesimal without Logic”.
16. Speaker at the conference “PDE, Microlocal and Time-frequency Analysis”, Novi Sad, Serbia, September 3-8, 2012; title: “Generalized functions as a category of smooth set-theoretical maps”.
17. Speaker at the conference “Mathematical Logic and General Topology”, Novi Sad, Serbia, September 5-8, 2012; title: “Ultrafilter sets smaller than their complements”.
18. Speaker at the conference “XVII Geometrical Seminar”, Zlatibor, Serbia, September 3-8, 2012; title: “Theory of infinitely near points in smooth manifolds: the Fermat functor”.
19. Invited speaker at the symposium "Theories of Continua: Logical and Philosophical Reflections" as part of the 14th *Congress of Logic, Methodology and Philosophy of Science* in Nancy, France, July 2011; title: “Knowledge comes from the dialectic between two worlds: the case of Fermat reals”.
20. Speaker at the conference “Generalized functions 2011”, Fort de France, Martinique, April 2011; Title: “Interacting worlds: transfer of ideas from Fermat ring to Colombeau’s ring”.
21. Caputo P., Giordano P., Vancheri A., “Towards sustainable cities. Analysis and improvement of the urban metabolism of Lugano and Barcelona”. Presented at the conference PALENC 2010, 20 September - 1 October 2010.
22. Invited lecturer at the course “Metodi matematici per la progettazione” of Prof. E. Marchetti, Polytechnic of Milan. Title: “Evidence based design: ovvero le interazioni tra matematica e urbanistica”. Milan, December 2009.
23. Speaker at the conference “Logic and Mathematics”, York, August 2009; title: “Fermat reals: An example of dialogue between formalism and intuition”.
24. Invited speaker at the colloquium of the Interdisziplinäre Zentrum für Komplexe Systeme (IZKS, Bonn, Germany), June 2009; title: “Dynamics of cities: A mathematical planning tool for shopping malls”.

25. Invited speaker at the conference “INPUT08”, Lecco, March 2009; title: “Planning of a complex system: the problem of big traffic generators”.
26. Invited lecturer at the course “Metodi matematici per la progettazione” of Prof. E. Marchetti, Polytechnic of Milan. Title: “Matematica dei sistemi complessi e decisioni in urbanistica”. Milan, November 2008.
27. Invited speaker at the conference “S4 modeling tour”, Milan, April 2008; title: “Interaction Spaces: a language for the collaboration between MAS and hard sciences”.
28. Speaker at the conference “Innovation for Sustainable Production 2008”, i-SUP 2008, April, 22-25, 2008, Bruges, Belgium; title: “A mathematical model of complex mobility patterns for big traffic generators competition and sustainability”.
29. Invited speaker at the conference VIIth AESOP workshop, Thematic Group on Planning and Complexity, Milan, 22 - 23 February 2008; title: “Interaction Spaces Theory: modeling complex systems with the details of MAS and the mathematics of Synergetics”.
30. Invited lecturer at the course “Metodi matematici per la progettazione” of Prof. M.S. Vianello, Polytechnic of Milan. Title: “Supporto alle decisioni in urbanistica mediante modello matematico”. Milan, November 2006.
31. Invited speaker at the conference “Systemic approach and microscale urban complexity”, February 2006; title: “Interaction Spaces: cellular automata + multi-agents models with sound mathematical properties”.
32. Invited speaker at the conference “Herbsttagung Schweizerische Mathematische Gesellschaft”, Lugano, 22-24 September 2005; title: “A mathematical model of urban systems”.
33. Speaker at the conference “Computer in Urban Planning and Urban Management”, London, July 2005; title: “Continuous valued cellular automata and decision processes of agents for urban dynamics”.
34. Invited speaker at the Bonn International Graduate School seminars, July 2003; title: “Infinitesimal Differential Geometry”.
35. S. Alberverio, D. Andrey, P. Giordano, M. Simona, A. Vancheri, “Continuum state cellular automata based models of urban growth processes”, contribution presented at the International Congress of Industrial and Applied Mathematics ICIAM, Sydney, 2003.
36. Invited speaker at the conference “I numeri infinitesimi – Aspetti storici, filosofici, scientifici e didattici di una grande controversia”, Pisa November 2002; title: “Infinitesimi nilpotenti: metodo e creatività”.
37. Invited speaker at the Institute of Applied Mathematics of Bonn in October 2002, title “Differential geometry in spaces of mappings”.
38. Invited speaker at the conference “NSA 2002”, satellite conference of the meeting UMI-AMS, Pisa, June 2002. Title “‘Standard infinitesimals’: actual nilpotent infinitesimals in standard analysis”.
39. Invited speaker at the University of Trento (I), March 2001. Title: “Geometria Differenziale con infinitesimi nilpotenti”.
40. Speaker at the conference “Quantitative methods for applied sciences” Siena, June 2000. Title: “Quantifying changes in ecosystem status as measured by multiple indicators”.
41. Invited speaker at the “Workshop multitematico in Fisica e Matematica”, 9th September 2000, CERFIM Locarno (CH). Title: “Nilpotent infinitesimals in differential geometry, analysis and physics”.
42. Invited speaker at the Institute of Applied Mathematics of Bonn in June 1999, title “Nilpotent infinitesimals in infinite dimensional differential geometry”.
43. Speaker at the conference “Reuniting the antipodes: constructive and non-standard views of the continuum”, Venice, 17-23 May 1999, title “Nilpotent infinitesimals and Synthetic Differential Geometry in classical logic”.
44. Speaker at the conference “Non-standard Analysis and Related Methods” (Oberwolfach, Germany), February 1999, title “An extension of the hyperreals with nilpotent infinitesimals”.

URL

1. Paolo Giordano's projects on FWF website
<https://pf.fwf.ac.at/de/wissenschaft-konkret/project-finder?search%5Bwhat%5D=Giordano+Paolo>
2. Paolo Giordano's projects on USI website 1
<https://search.usi.ch/it/progetti/236/Supporto-alle-decisioni-basato-su-modello-matematico-per-il-problema-dei-grandi-generatori-di-traffico>
3. Paolo Giordano's projects on USI website 2
<https://search.usi.ch/it/progetti/288/effects-of-neighborhood-choice-on-housing-markets-a-model-based-on-the-interaction-between-microsimulations-and-revealedstated-preference-modelling>
4. Paolo Giordano's projects on SNF website <http://p3.snf.ch/person-138211-Giordano-Paolo>