

## CURRICULUM VITAE

Name: *Eugenio Lippiello*

Place and date of birth: *A*

Citizenship: *Italian*

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## Education and Positions Held

01.12.2017-: Associate Professor, scientific sector FIS/02, Department of Mathematics & Physics, University of Campania "L. Vanvitelli";

01.10.2008- 30.11.2017: Assistant Professor, scientific sector GEO/10, Department of Mathematics & Physics, Second University of Naples;

01.10.2007 - 30.09.2008: Post-Doctoral position, CNISM, Second University of Naples, on the subject "approccio statistico allo studio della pericolosità di fenomeni naturali";

22.05.2007 – 30.09.2007 : Physics Teaching, I'I.T.I.S. "A. Pacinotti", Scafati (SA)

22.05.2006 – 21.05.2007 : Post-Doctoral position, Department of Physical Sciences, University of Naples "Federico II" , for the Project "Formazione di personale di alta qualificazione per lo sviluppo di tecnologie innovative e competenze manageriali nell'ambito del rischio ambientale";

01.09.2005-21.05.2006 : Physics Teaching, I.P.S.I.A. "G. Marconi", Vallo della Lucania, Salerno;

01.05.2005 – 31.07.2005 : Post-Doctoral position, INFN, University of Salerno;

01.05.2004 – 30.04.2005 : Post-Doctoral position, Department of Physical Sciences University of Naples "Federico II" for the project "Analisi e Monitoraggio del Rischio Ambientale";

21.02.2002 – 30.04.2004 : Post-Doctoral position, Physics Department "E.R. Caianiello", University of Salerno;

1998-2002 : PhD student in Physics, 'University of Salerno, supervisor Prof. Marco Zannetti. Titolo conseguito il 06-02-2002;

1993-1998 : Laurea in Fisica (cum laude), University of Salerno. Thesis title: "Deviazioni dal teorema fluttuazione dissipazione nella dinamica dell'ordinamento di fase", under the supervision of Prof. Marco Zannetti.

## Contributions to workshops and schools

- SM & FT 2019, December 11-13, 2019, Bari (Italy), talk with the title

"Heterogeneity, visco-elasticity and the universality class of earthquake occurrence";

- Statseism 11 , August 18-21, 2019, Hakone (Japan), talk with title

"Friction heterogeneity and the connection between aftershocks and afterslip";

- ESC 2010, September 2-7, 2018, La Valletta (Malta), talk with the title

"The prognostic role of foreshocks";

- ICPMS 2018, International Conference on Physics, Mathematics and Statistics, May 12 to 14, 2018 in Shanghai, China. Member of the Technical Program Organizing Committee;

-AGU-MEETING 2017, New Orleans (Louisiana), 11-15 December 2017, talk with title " Modeling Aftershocks and Foreshocks by Time-Dependent Friction Laws"

- CONES 2016, London, July 6-8, 2016, invited talk with title "Interface roughening and viscoelasticity as a novel explanation of scaling laws and crossovers in earthquake occurrence"

- StatSeism9, Potsdam, June 14.18, 2015, invited talk with title "Stress distribution as an hallmark for different stress regimes

- 7th IDMRCs, Barcelona, July 21-26, 2013, invited talk with title "Heat flux probability and non-equilibrium fluctuation-dissipation theorem"

- Summer School in Mathematical Models in Seismology. (L'Aquila, 8-19 Luglio 2013). Teaching course with title "Statistical seismology".
- EGU General Assembly 2013 (Vienna), invited talk with title "Spatial organization of foreshocks as a tool to forecast large earthquakes"
- 17/01/2013, University "Federico II" (Napoli), invited talk with title "Seismic forecasting from correlations in earthquake catalogs"
- G.N.G.T.S. 20-23/11/2012, Potenza, Talk with title: "Spatial organization of foreshocks as a tool to forecast large earthquakes"
- 28/09/2012 Invited talk within the Master2 of UJF earth science program 2012 at the Joseph Fourier University Grenoble. Talk with title: "The role of stress diffusion on aftershock triggering"
- Workshop on "Non-equilibrium fluctuation-response relations", Giglio, June 5-8 (2012); Invited talk on: "Second-order Fluctuation-Dissipation relations and the measurement of cooperative lengths"
- International Conference of Statistical Seismology STATSEI7, Thera 24-27 May 2011, invited talk with title: "Mainshock magnitude inferred from the spatial organization of foreshocks"
- AGU-MEETING, San Francisco (CA) 14-18 Decembre 2010, Oral Contribution with title: "Multipletime scaling and universal behaviour of the earthquake interevent time distribution"
- Workshop on "Modelling geophysical systems by statistical mechanics methods" Erice, (Italy) 28-30 April 2008, talk with title: "Dynamical scaling in branching models for seismicity"
- Seismological Society of America annual meeting, Santa Fe, New Mexico, April 16-18 2008, talk with title "The role of space and time correlations on the next earthquake magnitude"
- XIII Workshop on Statistical Mechanics & Field theory, Bari, Italy, invited talk with title "The generalization of the fluctuation-dissipation theorem: a new algorithm for the computation of the response function"
- Convegno nazionale del G.N.G.T.S, Roma, Italia, 16-17 Novembre 2005, talks with titles: "Scaling dinamico in un modello a trigger per la previsione sismica", "Criticità' auto-organizzata e la memoria della crosta terrestre", "Universalità nelle proprietà statistiche di terremoti e flares solari"
- Meeting of the P.R.I.N. project "Fisica delle interazioni fondamentali: teorie di gauge, gravità e stringhe", Capri 2005, talks with titles: "La generalizzazione del teorema fluttuazione-dissipazione e una nuova procedura per il calcolo della risposta lineare", "Modelli statistici per i terremoti e criticità' auto-organizzata"
- Convegno nazionale di Fisica Statistica e dei sistemi complessi, Parma, Italia, 03-05 Giugno 2002, talk with title "Il ruolo della dimensionalità nella risposta di non equilibrio di sistemi ferromagnetici" –
- INFMeeting, "National conference on physics of matter ", Roma, Italia, 18-22 Giugno 2001, talk with title "Bulk and interface fluctuations in the response of coarsening systems"
- "Eötvös School and Workshop on Phase Separation", Budapest, 2-8 Luglio 2000. talk with title "Fluctuation dissipation ratio in the one dimensional Ising kinetic model"

## **Editor & Referee Activity**

E.Lippiello is associate editor for the ISI journal Acta Geophysica.

E.Lippiello is referee for the following ISI journals: Physical Review Letters, Physical Review E, Europhysics Letters, Journal of Physics A: Mathematical and General, Journal of Physics: Condensed Matter, European Physical Journal B, Physica A, Journal of Geophysical Research: Solid Earth, Journal of Statistical Mechanics: Theory and Experiments, Geophysical Journal International, Physical Chemistry, Annals of Geophysics, Non Linear Processes in Geophysics, The Annals of Applied Statistics, Pure and Applied Geophysics, Journal of Seismology, Physics of the Earth and Planetary Interiors, Computers and Geosciences, Acta Geophysica, Physics Letters A, The Scientific Pages of Kinetics and Thermodynamics, Entropy, Scientific Reports, Natural Hazards and Earth System Sciences

## Financed Projects

E. Lippiello has been Research Unit responsible in the project “Coarse-grained description for non-equilibrium systems and transport phenomena” (PRIN2018)

E. Lippiello has been Research Unit responsible in the project, VALERE 2019, “Enhancing the Energetic Performance of Self-Sustained Wireless Sensor Networks”

E. Lippiello has been Research Unit responsible in the project “Transizione di unjamming nei materiali granulari e precursori sismici: teoria, esperimenti e simulazioni” (FIRB2008) and co-responsible in the project “Dinamica di unjamming in mezzi granulari sotto sforzo di taglio: proprietà micro-meccaniche e statistiche di un modello di faglia sismica” (PRIN2009).

## Research Periods abroad

August 2019 – at the Earthquake Research Institute, the University of Tokyo

September 22 – December 12, 2014 at the Kavli Institute for Theoretical Physics at the UNIVERSITY OF CALIFORNIA SANTA BARBARA.

In September 2012 E.Lippiello has been an invited professor at the Joseph Fourier University of Grenoble.

E. Lippiello has been invited to participate in the program entitled “Avalanches, Intermittency, and Nonlinear Response in Far-From-Equilibrium Solids” in the period

In March 2011 E. Lippiello has been an invited guest at the Laboratoire de Physique Théorique et Hautes Energies Université Pierre et Marie Curie - Paris VI.

July 2010 E. Lippiello has spent a period as invited visitor at the Centre de Recerca Matemàtica at the Universitat Autònoma de Barcelona.

## Awards

In 2018 E. Lippiello has obtained the “National Academic Qualification as Full Professor” in two different subject areas related to the object of the selection process: 02/A2 (Theoretical Physics of fundamental interactions) and 04/A4 (Geophysics).

In 2010 E. Lippiello has obtained the “National Academic Qualification as Associate Professor” in three different subject areas related to the object of the selection process: 02/A2 (Theoretical Physics of fundamental interactions), 02/B2 (Theoretical Physics of Matters) and 04/A4 (Geophysics).

## Teaching

From 2018 E.L. has taking courses of Thermodynamics and Complements of Mechanics for the degree in Physics of the University of Campania “L.Vanvitelli”.

From 2014 E.L. has taking courses of Mathematical Methods for Physics for the degree in Physics of the University of Campania “L.Vanvitelli”.

From 2008 to 2013 E. L. took courses in Geophysics at the Department of Environmental Sciences of the Second University of Naples.

He has been an invited professor for a teaching class entitled «Scaling approaches to seismic occurrence» within the Master2 of UJF earth science program, 2012, as included in the «multi-scale rocks failure mechanics» unit at the Joseph Fourier University Grenoble in 2012.

In 2013 he has been an Invited professor in the Summer School in Mathematical Models in Seismology (L'Aquila) and in 2014 in the Summer School in Mathematical Models in Social Innovation and Modelling Earthquakes (L'Aquila).

E. Lippiello has been supervisor of 5 thesis in Environmental Sciences and tutor of two PHD thesis in Physics.

Details on his teaching activity and publications can be found at  
[http://www.matfis.unicampania.it/dipartimento/docenti-csa?](http://www.matfis.unicampania.it/dipartimento/docenti-csa?AA_OFFERTA=2018MATRICOLA=059305&MATRICOLA=059185)  
AA\_OFFERTA=2018MATRICOLA=059305&MATRICOLA=059185.

## Research interest (keywords)

Non-equilibrium statistical mechanics: phase ordering dynamics, coarsening systems,

aging dynamics;  
Fluctuation Dissipation Theorem: Deviations and Generalization of the Fluctuation  
Dissipation Theorem in non-equilibrium systems;  
Phase ordering dynamics under shear flow: analytical solution for Langevin equations;  
Self-organized criticality: temporal correlation in sand-pile models and real seismic  
occurrence;  
Statistical approach to seismic occurrence: stochastic models for seismic hazard  
evaluation;  
Seismic Forecasting;  
Statistical approach Solar flares and Coronal Mass Ejections occurrence: temporal  
correlations, energy correlations and stochastic models for flares occurrence;  
Molecular dynamics simulations for fault gauge in seismic faults.  
Details on research activity can be found at [https://www.researchgate.net/profile/Eugenio\\_Lippiello](https://www.researchgate.net/profile/Eugenio_Lippiello)

## **Publications**

E.L is the author of 91 publications on international journals.

A complete list of publications can be found at

<https://iris.unicampania.it/simple-search?>

[location=&query=&filtername=author&filtertype=authority&filterquery=rp01062&rpp=1000&sort\\_by=bi\\_sort\\_2\\_sort  
&order=desc#.Xk0o2OEo88o](https://iris.unicampania.it/simple-search?location=&query=&filtername=author&filtertype=authority&filterquery=rp01062&rpp=1000&sort_by=bi_sort_2_sort&order=desc#.Xk0o2OEo88o)

and

<https://scholar.google.it/citations?user=5daKVP4AAAAJ&hl=it>