

## Dr. Edmondo Di Giuseppe

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CONTACT INFORMATION	<p>National Research Council, Institute for Biometeorology CNR-IBIMET Via dei Taurini, 19 Room 115 Rome, 00185 Italy Work: +39-0649937689 E-mail: <a href="mailto:e.digiuseppe@ibimet.cnr.it">e.digiuseppe@ibimet.cnr.it</a> ORCID identifier: 0000-0002-6443-9106 Personal web page: <a href="http://edidigi.github.io">edidigi.github.io</a></p>
RESEARCH INTERESTS	<p><b>Statistical climatology: clustering, extreme values, geostatistics, space-time models and Bayesian inference.</b></p>
CURRENT POSITION	<p><b>Postdoctoral Research Assistant</b> <b>Jan 2015 to present</b> National Research Council, Institute for Biometeorology CNR-IBIMET</p> <p>VOPA</p> <ul style="list-style-type: none"><li>• Volatility of agricultural commodity prices - PI: Dr. Franco Miglietta.</li><li>• Study of the effects of <i>El Niño</i> on wheat worldwide production; Modeling of seasonal forecasts; Analysis of heat waves and their connection to large scale drivers.</li></ul>
PREVIOUS POSITIONS	<p><b>Research Assistant</b> <b>Nov 2003 to Dec 2014</b> Agricultural Research Council, Research unit for Climatology and Meteorology applied to Agriculture CREA-CMA</p> <p>AGROSCENARI</p> <ul style="list-style-type: none"><li>• Adaptation scenarios of Italian agriculture to climate change - PI: Dr. Stanislao Esposito.</li><li>• Functional clustering of temperature and precipitation; Hierarchical Bayesian approach for predicting rainfall fields from lightning records.</li></ul> <p>CLIMANIMAL</p> <ul style="list-style-type: none"><li>• Heat warning model for dairy cattle - PI: Dr. Stanislao Esposito.</li><li>• Statistical analysis of heat waves (temperature and air humidity); Logistic regression models for determining the relation between heat waves and dairy cattle mortality.</li></ul> <p>TEMPIO</p> <ul style="list-style-type: none"><li>• Seasonal forecast model for temperature and rainfall anomaly determination - PI: Dr. Stanislao Esposito.</li><li>• Canonical Correlation Analysis for evaluating the relation between heat wave/dry spells and weather types.</li></ul> <p>CLIMAGRI</p> <ul style="list-style-type: none"><li>• Climate Change and Agriculture - PI: Dr. Domenico Vento.</li><li>• Statistical analysis of rainfall, hydrometric levels, flow and dry/wet spells; Time series analysis; Models for return probability of rainfall extreme events (Generalized Extreme Value and Generalized Pareto distributions).</li></ul> <p><b>Research Assistant</b> <b>Mar to Oct 2003</b> Polytechnic University of Marche, Faculty of Economics Giorgio Fua'</p> <p>COFIN 2001</p> <ul style="list-style-type: none"><li>• Complex dynamics and financial fragility in an agent-based model - PI: Professor Mauro Gallegati</li></ul>
EDUCATION	<p><b>Ph.D., Methodological Statistics</b> <b>December, 13 2013</b> Sapienza University of Rome, Roma, Italy</p> <ul style="list-style-type: none"><li>• Thesis: <i>Statistical methods for the analysis of climatic phenomena</i></li><li>• Advisor: Professor Giovanna Jona Lasinio</li><li>• Area of Study: Statistical climatology</li></ul>

- Thesis Topic: *Evaluation of agent actions at local scale*
- Adviser: Professor Sergio Bruno
- Area of Study: Microeconomy

REFEREED  
JOURNAL  
PUBLICATIONS

- [1] Magno R., De Filippis T., **Di Giuseppe E.**, Pasqui M., Rocchi L., and Gozzini B., 2018: "Semi-Automatic Operational Service for Drought Monitoring and Forecasting in the Tuscany Region". *Geosciences*, 8(2), 49. doi:10.3390/geosciences8020049
- [2] **Di Giuseppe E.**, Jona Lasinio G., Esposito S., Pasqui M., 2013: Functional clustering for Italian climate zones identification. *Theoretical and Applied Climatology*, 114(1-2): 39–54. doi:10.1007/s00704-012-0801-0
- [3] Mucciardi M., Bertuccelli P., **Di Giuseppe E.** 2012: Local Spatial Modeling of Meteorological Variables. *Advances in Mathematical and Computational Methods*, 2(3): 1–14, ISSN 2160-0635, 10.5729/amcm.vol2.issue3.1

BOOK CHAPTERS

- [4] **Di Giuseppe E.**, Jona Lasinio G., Pasqui M. and Esposito S., 2014: Predicting Rainfall Fields from Lightning Records: A Hierarchical Bayesian Approach. In: Lanzarone E., Ieva F.: *The Contribution of Young Researchers to Bayesian Statistics*, Springer Proceedings in Mathematics & Statistics, Springer International Publishing, Vol. 63, pp. 95–99. doi:http://dx.doi.org/10.1007/978-3-319-02084-6\_19

CONFERENCE  
PUBLICATIONS

- [1] R. Magno, M. Pasqui and **E. Di Giuseppe**, 2016: Analysis of changes in drought occurrence over the Mediterranean Basin using multiple time scales SPI index, *EMS Annual Meeting Abstracts*, Vol. 13, EMS2016-425, 16th EMS/11th ECAC.
- [2] M. Pasqui and **E. Di Giuseppe**, 2016: Large scale atmospheric drivers for heat waves in the Mediterranean Basin, *Geophysical Research Abstracts*, Vol. 18, EGU2016-14124-1, EGU General Assembly 2016.
- [3] Magno R., Angeli L., Chiesi M., De Filippis T., **Di Giuseppe E.**, Pasqui M., Rocchi L., Zabini F., 2015: Implementation of a national drought monitoring and forecasting system, Conference: *Earth Observation for Water Cycle Science 2015*, ESA-ESRIN Frascati, Rome.
- [4] B. Parisse, **E. Di Giuseppe**, M. Scaglione, S. Esposito, 2014: Spatio-temporal distribution of calibrated Hargreaves-Samani coefficients in Italy, *Proceedings of XVII AIAM Conference: Role of agro-meteorology in the new agricultural policies*, Roma, 10–12 Giugno.
- [5] Pasqui M., Melani S., Pasi F., Gozzini B., Gaetani M., **Di Giuseppe E.**, Levizzani V., 2013: Retrospective analysis of synoptic favourable conditions for deep convective events in the Mediterranean Sea, *European Conference on Severe Storms*, Helsinki; 06/2013
- [6] M. Baldi, S. Esposito, M. Pasqui, **E. Di Giuseppe**, F. Guarnieri, 2010: An operational seasonal forecast service for agriculture in Italy: the Tempio project, *Abstracts of the Technical Conference on Changing Climate and Demands for Climate Services for Sustainable Development*, WMO/TD-No. 1521, Antalya, Turkey, 16–18 February.
- [7] S. Giavante, **E. Di Giuseppe**, S. Esposito, 2009: Flat steps models for the analysis of temperature and precipitation Italian time series from 1961 to 2007, *Statistical Methods for the analysis of large data-sets - Book of short papers*, 427–430.
- [8] M. Pasqui, **E. Di Giuseppe**, S. Quaresima, F. Guarnieri, S. Giavante, S. Esposito, 2008: An atmospheric regime characterization of monthly seasonal forecast in Italy based on weather type classification, *Advances in Weather and Circulation Type Classifications & Applications (COST 733 Mid-term Conference)*, 22–25 October 2008, Krakow, Poland, pag. 69.

- [9] Baldi M., Esposito S., **Di Giuseppe E.**, Pasqui M., Maracchi G., Vento D., 2008: Seasonal forecasting climatic anomalies for agriculture in Italy: the TEMPIO Project, *EMS Annual Meeting Abstracts–European Conference on Applied Climatology (ECAC)*, Amsterdam, Netherlands 29 September–3 October, EMS2008-A-00519 European Meteorological Society.
- [10] F. Guarnieri, **E. Di Giuseppe**, B. Gozzini, F. Meneguzzo, R. Magno, G. Maracchi, M. Pasqui, 2007: Analysis of historical series of hourly pluviometric data in Central Italy, *7th EMS Annual Meeting/8th ECAM Abstracts*, Vol. 4, [EMS2007-A-00320](#).
- [11] **Di Giuseppe E.**, Esposito S., Vento D., 2007: A comparison of models in return levels calculating, *IUGG–XXIV International Union of Geodesy and Geophysic*, Perugia, Italy 2-13 July, [IAHS/HW2003 4570](#), pag. 626, ISBN: 978-88-95852-25-4.
- [12] F. Guarnieri, **E. Di Giuseppe**, B. Gozzini, F. Meneguzzo, R. Magno, G. Maracchi, M. Pasqui, 2007: Analysis of historical series of hourly pluviometric data in Central Italy, *7th EMS Annual Meeting / 8th ECAM Abstracts*, Vol. 4, [EMS2007-A-00320](#).
- [13] Mangianti De Angelis F., Epifani C., Epifani R., **Di Giuseppe E.**, 2005: A climatic analysis of some Italian tourist sites. A future scenario for tourism, *WMO Technical Conference on Climate as a Resource*, Beijing, China, 1–2 November.
- [14] Ferrari R., Pasqui M., Bottai L., Esposito S., **Di Giuseppe E.**, 2005: Assessment of soil erosion estimate based on a high temporal resolution rainfall dataset, *EMS 5th Annual Meeting Abstracts*, [EMS05-A-00285](#) European Meteorological Society.
- [15] C. Epifani, **E. Di Giuseppe**, S. Esposito, D. Vento, 2005: Extreme events of precipitation over Italy and their probability of occurrence, *EMS 5th Annual Meeting Abstracts*, EMS05-A-00311 European Meteorological Society.
- [16] **E. Di Giuseppe**, D. Vento, C. Epifani, S. Esposito, 2005: Analysis of dry and wet spells from 1870 to 2000 in four Italian sites, *EGU European Geosciences Union, Geophysical Research Abstracts*, Vol. VII , 07712
- [17] Vento D., Esposito S., Epifani C., **Di Giuseppe E.**, 2004: Analysis of Italian precipitation regimes with reference to extreme events, *EMS 4th Annual Meeting Abstracts–ECAC-5th Conference on Applied Climatology*, Vol. 1, 00249, EMS European Meteorological Society.
- [18] **Di Giuseppe E.**, Vento D., Esposito S., Epifani C., 2004: Analysis of heavy rainfall in very high temporal resolution in Italy during last 10 years, *ICCP-14th International Conference on Clouds and Precipitation Proceedings*, Vol. I, pagg. 285–288.
- [19] **Di Giuseppe E.**, Jona Lasinio G., Pasqui M. and Esposito S., 2013: Predicting Rainfall Fields from Lightning Records: A Hierarchical Bayesian Approach, *First Bayesian Young Statisticians Meeting-BAYSM 2013*, Milan, Italy, June 5-6, 2013.
- [20] **Di Giuseppe E.**, Jona Lasinio G., Pasqui M., Esposito S., 2012: Point Processes for modeling lightning data, *IX Conference on Geostatistics for Environmental Applications geoENV2012*, Valencia, Spain, September 19–21, 2012, Editor: J. Jaime Gómez-Hernández, ISBN: 978-84-8363-924-5.
- [21] **Di Giuseppe E.**, Jona Lasinio G., Pasqui M., Esposito S., 2010: Functional clustering of Temperature and Precipitation data for Italian climate zones determination, *Gfkl-Cladag Joint Meeting 2010*, Book of Abstract 8-10 September 2010, Firenze, Italy, pp. 151–152.
- [22] **Di Giuseppe E.**, Jona Lasinio G., Esposito S. and Pasqui M., 2010: A functional data approach for climate zones identification, *11th International Meeting on Statistical Climatology Program&Abstracts*, pp. 140–141, 12–16 July 2010, Edinburgh, Scotland.

CONFERENCE  
TALKS

TEACHING  
EXPERIENCE

**WMO Regional Training Center (RTC) - Italy**

- Instructor for Seasonal forecasts and water management Training Course 2015
  - October, 5-9 (Distance Learning) and 19-23 (Lessons)
  - Responsible for R practical training.

**WMO Regional Training Center (RTC) and MedCof**

- Instructor for Second MedCof Training Workshop ?Verification of Operational Seasonal Forecasts in the Mediterranean region? 2016
  - 26 October - 11 November (Distance Learning) and 15-18 November (Lessons)
  - Responsible for R practical training.

PROFESSIONAL  
SERVICE

**Referee Service**

- *DCAI 2015: 12<sup>th</sup> International Symposium on Distributed Computing and Artificial Intelligence*

SOFTWARE SKILLS

Computer Programming:

- UNIX shell scripting

Numerical Analysis:

- R, CDO Operators

Version Control:

- Git, Svn

Desktop Editing and Productivity Software:

- Vim
- T<sub>E</sub>X (L<sup>A</sup>T<sub>E</sub>X, B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>), Markdown
- Microsoft Office, OpenOffice, LibreOffice, Google Docs
- Basics of ArcGis, GRASS

Operating Systems:

- Apple OS X, Linux, Microsoft Windows

REFERENCES  
AVAILABLE TO  
CONTACT

**Dr. Massimiliano Pasqui** (e-mail: [m.pasqui@ibimet.cnr.it](mailto:m.pasqui@ibimet.cnr.it); phone: +39-0649937615)

- Permanent Researcher, National Research Council, Institute for Biometeorology,
  - ◇ National Research Council, Institute for Biometeorology,  
Via dei Taurini, 19 Rome, 00185 Italy
  - ★ *Dr. Pasqui is my current postdoctoral supervisor.*

**Prof. Giovanna Jona Lasinio** (e-mail: [giovanna.jonalasinio@uniroma1.it](mailto:giovanna.jonalasinio@uniroma1.it); phone: +39 06 49910473)

- Associate Professor, Sapienza University of Rome
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  - ★ *Prof. Jona Lasinio was my PhD Thesis Advisor.*

**Dr. Stanislao Esposito** (e-mail: [stanislao.esposito@crea.gov.it](mailto:stanislao.esposito@crea.gov.it); phone: 06 7005413–102)

- Permanent Resercher, Research Council for Agriculture-CREA
  - ◇ via della Navicella,2 00184 Rome, Italy
  - ★ *Dr. Esposito was my tutor during the experience in AGROSCENARI, TEMPIO, CLI-MANIMAL and CLIMAGRI projects.*

**Prof. Gianfranco Giulioni** (e-mail: [gianfranco.giulioni@unich.it](mailto:gianfranco.giulioni@unich.it); phone: +39 0854537584)

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  - ★ *Prof. Giulioni was my tutor during the experience in COFIN project.*

MORE  
INFORMATION

More information and auxiliary documents can be found at  
[ResearchGate](#), [Mendeley](#) and [Google Scholar](#).