

PERSONAL INFORMATION

Silvia De Angeli

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WORK EXPERIENCE

10/2017–Present

Research Fellow

CIMA Research Foundation, Savona (Italy)

Risk scenarios definition and characterization in a multi-scale and multi-hazard framework: definition and characterization of the elements exposed to different natural hazards, with a specific focus on sensible infrastructures. The topic is investigated:

(i) in a multi-hazard perspective, to find a characterization compliant to different hazards, (ii) considering different geographic scales (local, sub-national, national), (iii) considering the different phases of the Disaster Management Cycle (prevention, preparedness, response, recovery).

04/2014–09/2014

Risk Manager Trainee

CIMA Research Foundation, Savona (Italy)

EU FP 7th RASOR Project development: analysis of relevant literature on vulnerability from natural hazards, development of a methodology for systemic vulnerability of territorial networks, development of a methodology for creation and analysis of risk scenarios, use of GIS for creation and analysis of risk scenarios.

03/2014–08/2014

Occasional collaboration agreement

Stefania Traverso – Geospatial Intelligence and GIS Advisor, Genova (Italy)

Analysis of worldwide legislation concerning geospatial data management and services for interoperability between systems

02/2014–07/2014

Assistant to the Consultant Technician of the Public Prosecutor of Savona, Italy

Technical consultancy on the landslide event and the train accident in Andora (SV), Italy (17.01.2014)

01/2011–02/2011

Undergraduate Internship

CIMA Research Foundation, Savona (Italy)

Knowledge and use of ArcGIS and OWIS platform, 3D building extrusion, element at risk identification and classification, vulnerability studies and damage maps creation.

EDUCATION AND TRAINING

09/2014–02/2018

Doctor of Philosophy (PhD) - UME (Understanding and Managing Extremes) Graduate School - Weather-Related Risk (WRR) Programme

Istituto Universitario di Studi Superiori Pavia (IUSS), Pavia (Italy)

RESEARCH TOPIC: Modelling of Single and Multiple Hazards Impacts on Complex Territorial Systems

GOAL: The main objective is the analysis of the ways in which hazards and hazard interactions can impact a territorial system. The analysis starts from multi-hazard interactions, but touches also exposure, vulnerability and impact assessment in a multi-hazard perspective. A specific focus is dedicated to exposed elements characterization in a single-hazard and multi-hazard perspective.

- 01/2017–06/2017 **Study Abroad Internship – Postgraduate Research**
 King's College London, London (United Kingdom)
 PROGRAMME OF THE TRAINEESHIP: contribution to a methodological framework to study the potential impact of different natural hazards and natural hazard interactions on the built environment.
 Supervisors: Prof. B. D. Malamud, Dr. F. Taylor.
- 09/2011–02/2014 **Master Degree in Environmental and Energy Engineering 110 with honours, 7 February 2014**
 Università degli Studi di Genova, Genova (Italy)
 MASTER THESIS: "Development of a multi-hazard and multi-users risk scenario methodology and application to a study case." In collaboration with CIMA Foundation, Savona, Italy and Vrije Universiteit Brussel, Belgium. Supervisors: Prof. G. Boni, Prof. M. Kervyn, Doc. R. Rudari, Eng. S. Traverso.
- 02/2013–07/2013 **Erasmus Exchange - Master in Geography, Terrestrial Ecosystems and Environmental Change**
 Vrije Universiteit, Brussels (Belgium)
 Attended exams: Natural Hazards, Natural Risk Management, Dynamics and Modelling of Glacial Systems Surface Water Hydrology
- 10/2012 **Short course on "Spatial Multicriteria Analysis for Environmental Decision-making", Dr. Davide Geneletti, Department of Civil and Environmental Engineering**
 University of Trento, Trento (Italy)
- 09/2008–09/2011 **Bachelor of Science in Environmental Engineering 110 with honors, 30 September 2011**
 Università degli Studi di Genova, Genova (Italy)
 BACHELOR THESIS: "Digital Earth Action: vulnerability assessment of infrastructure networks finalized to emergency management." In collaboration with CIMA Foundation, Savona, Italy. Supervisors: Prof. L. Ferraris, Doc. E. Trasforini, Eng. S. Traverso.
- 05/2015 **Spring School on land use and the vulnerability of socio-ecosystems to climate change: remote sensing and modelling techniques**
 University Ca' Foscari, Venezia (Italy)
- 07/2015 **IEEE Geoscience and Remote Sensing Society 2015 Summer School (GR4S) on "Data Fusion for Risk Mapping"**
 University of Pavia, Pavia (Italy)

PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C1 | C1 | C1 | C1 | C1 |
| Cambridge First Certificate in English (FCE) IELTS - CEFR Level C1 | | | | | |

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| French | B1 | B1 | B1 | B1 | B1 |
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Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

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| Digital skills | R programming - Johns Hopkins University (Coursera) |
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Good command of office suite (Word, Excel, Power Point, Access), Matlab environment, SQL and GIS softwares, basic knowledge of R and Python programming languages, basic knowledge of GitHub

ADDITIONAL INFORMATION

Projects **UNISDR Programme 'Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities', CIMA Research Foundation (2018)**

CONTRIBUTION: Junior Risk Assessment Expert; development of Activity 2.1 'Data collection and exposure characterisation' and Activity 3.3 'Flood Impact and 16 National Probabilistic Risk Assessment'.

RISC-KIT (Resilience-Increasing Strategies for Coasts – toolkit) – FP7 EU Project (2013 - 2017)

CONTRIBUTION: Evaluation of direct and indirect impacts from coastal flooding in Bocca di Magra, Italy, applying the INDRA model; Multi Criteria Assessment with local stakeholders for the selection of suitable DRR measures for coastal flooding in Bocca di Magra, Italy.

RASOR (Rapid Analysis And Spatialization Of Risk) project – FP7 EU Project (2013-2016)

CONTRIBUTION: Database design, exposure elements classification, selection and definition of vulnerability curves for different natural hazards, definition of impact indicators.

Flood Risk Modelling for Malawi / WB contract number 7175945, CIMA Research Foundation (2016)

CONTRIBUTION: Evaluation of risk indicators and risk profile for Northern and Central Malawi and three selected hotspots.

Publications *"Coastal Risk Assessment Framework: Comparison of modelled fluvial and marine inundation impacts, Bocca di Magra, Ligurian coast, Italy"*, **Silvia De Angeli**, Mirko D'Andrea, Giacomo Cazzola, Daniele Dolia, Enrico Duo, Nicola Rebora, Coastal Engineering, Vol. 134, pp. 229-240, April 2018.

"Analysis of temporal and spatial overlapping of hazards interactions at different scales", **Silvia De Angeli**, Faith Taylor, Eva Trasforini, Roberto Rudari, Lauro Rossi. EGU General Assembly 2017, Vienna, Austria, 23–28 April 2017.

"Risk analysis based on hazards interactions", Lauro Rossi, Roberto Rudari, Eva Trasforini, **Silvia De Angeli**, Joost Becker. EGU General Assembly 2017, Vienna, Austria, 23–28 April 2017.

"What if the 25 October 2011 event that struck Cinque Terre (Liguria) had happened in Genoa, Italy? Flooding scenarios, hazard mapping and damage estimation", Francesco Silvestro, Nicola Rebora, Lauro Rossi, Daniele Dolia, Simone Gabellani, Flavio Pignone, Eva Trasforini, Roberto Rudari, **Silvia De Angeli**, Cristiano Masciulli. Natural Hazards Earth Systems Science, Vol. 16, pp. 1737–1753, 2016.

"Application of an Earth-Observation-based building exposure mapping tool for flood damage assessment", **Silvia De Angeli**, Eva Trasforini, Fabio Dell'Acqua. FLOODrisk 2016 - 3rd European Conference on Flood Risk Management, Lyon, France, 17th-21st October 2016.

"Impact of modelling scale on probabilistic flood risk assessment: the Malawi case", Roberto Rudari, Joost Beckers, **Silvia De Angeli**, Lauro Rossi, Eva Trasforini. FLOODrisk 2016 - 3rd European Conference on Flood Risk Management, Lyon, France, 17th-21st October 2016.

"A Gis-Based, Rapid and Holistic Flash Flood Risk Assessment for Emergency Management Services", Luca Cenci, Giuseppe Squicciarino, Laura Rossello, **Silvia De Angeli**, Eva Trasforini, Roberto Rudari, Giorgio Boni. 15th Plinius Conference on Mediterranean Risks, Giardini Naxos, Italy, 8–11 June 2016.

"Analysis of the impacts of EC-Earth Global Circulation Model in the RCP45 climate change scenario on maximum daily streamflow quantiles at global scale", Francesco Silvestro, Lorenzo Campo, Roberto Rudari, Christian Herold, **Silvia De Angeli**, Simone Gabellani, Mirko D'Andrea, Denisa Rodila. EGU General Assembly 2015, Vienna, Austria, 17-22 April 2016.

"Use of crowd source, Open Data and EO-based information in flood damage assessment: the 2014 urban flood in Genoa", Eva Trasforini, **Silvia De Angeli**, Mattia Fiorini, Lauro Rossi, Roberto Rudari. EGU General Assembly 2015, Vienna, Austria, 12-17 April 2015.

"Assessment of infrastructure functional damages caused by natural-technological disasters", Marco Massabo, Eva Trasforini, Stefania Traverso, Roberto Rudari, **Silvia De Angeli**, Francesca Cecinati, Valentina Cerutti. EGU General Assembly 2013, Vienna, Austria, 7-12 April 2013.

"An augmented reality representation for the assessment of functional damages due to natural and natech disasters", Stefania Traverso, Eva Trasforini, Francesca Cecinati, Valentina Cerutti, **Silvia De Angeli**, Marco Massabo, Roberto Rudari. VGR conference, Pisa, October 2012.

Seminars CIMA Foundation, Aphrodite Seminar: *"The Digital Earth Action: an augmented knowledge of a virtual reality for risk scenarios representation and operational evaluation of damages"*, Ing. Stefania Traverso Geospatial Intelligence Specialist, **S. De Angeli**, F. Cecinati, V. Cerutti, F. Gardella Environmental Engineers, Savona, 27 January 2012.