

# 1. PERSONAL INFORMATION

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# 2. QUALIFICATIONS

Since 2018: Associate Professor in Geotechnical Engineering at the Department of Engineering of the University of Campania "Luigi Vanvitelli".

From 2010 to 2018: Assistant Professor in Geotechnical Engineering at the Department of Civil Engineering of the Second University of Naples.

2005: Ph. Doctor in Geotechnical Engineering, within the consortium among University of Rome La Sapienza, University of Naples Federico II and Second University of Naples.

2001: Master's Degree in Civil Engineering (Geotechnical specialty) at the University of Naples Federico II.

# 3. SCIENTIFIC ACTIVITY

Author of papers published on international journals and proceedings of national and international conferences (https://iris.unicampania.it/simple-search?query=luca+comegna).

The scientific activity, developed through laboratory tests, field activity and numerical modeling, has been mainly focused on the following subjects:

- i) analysis, interpretation e modeling of slow and rapid landslides;
- ii) geotechnical characterization of natural clays and pyroclastic soils;
- iii) analysis of the landslides/man-made works interaction;
- iv) development of landslides mitigation measures;
- v) analysis of the effects of climate changes on slope stability.

The above themes are included in the research lines of the Research Groups "Geo-hydrological risk and effects of climate change" and "Innovative and Sustainable Strategies of Seismic Protection" at the Department of Engineering of the University of Campania "Luigi Vanvitelli".

# 4. EDITORIAL ACTIVITY

He is editorial board member of the following international journals:

- LANDSLIDES (ISSN 1612-510X, eISSN 1612-5118), since 2011
- CIVIL ENGINEERING JOURNAL (ISSN 2676-6957, eISSN: 2476-3055), since 2016.

He also collaborates, as reviewer of scientific papers, with the following international journals:

- ASCE-ASME JOURNAL OF RISK AND UNCERTAINTY IN ENGINEERING SYSTEMS, PART A: CIVIL ENGINEERING (eISSN 2376-7642);
- BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT (ISSN 1435-9529, eISSN 1435-9537)
- ENGINEERING GEOLOGY (ISSN 0013-7952)
- ENVIRONMENTAL EARTH SCIENCES (ISSN 1866-6280, eISSN 1866-6299)
- ENVIRONMENTAL GEOTECHNICS (eISSN 2051-803X)
- EARTH SYSTEM SCIENCE DATA (eISSN 1866-3516)
- GEOSCIENCES (ISSN 2076-3263)
- GÉOTECHNIQUE (ISSN 0016-8505, eISSN 1751-7656)
- JOURNAL OF HYDROLOGY (ISSN 0022-1694)
- HYDROLOGY AND EARTH SYSTEM SCIENCES (ISSN 1027-5606, eISSN 1607-7938)
- NATURAL HAZARDS AND EARTH SYSTEM SCIENCES (ISSN 1561-8633, eISSN 1684-9981)
- RIVISTA ITALIANA DI GEOTECNICA (ISSN 0557-1405).

He was quest co-editor of the following special issues:

- "Natural and Artificial Unsaturated Soil" (ISBN 978-3-0365-1876-3, Hbk; ISBN 978-3-0365-1875-6, PDF; https://doi.org/10.3390/books978-3-0365-1875-6), published in 2021 by *Geosciences*;
- "Atti dell'Incontro Annuale dei Ricercatori di Geotecnica IARG 2022" (ISBN 9788897517108), published in 2022 by *Associazione Geotecnica Italiana* (AGI).

### 5. PHD SCHOOL MEMBER

Since 2022 to date: member of the Ph.D. School in Science and Engineering for the Environment and the Sustainability at the University of Campania "Luigi Vanvitelli" (Coordinator Prof. Diego Vicinanza).

From 2020 to 2022: member of the Ph.D. School in Environment, Design and Innovation at the University of Campania "Luigi Vanvitelli" (Coordinator Prof. Mario Buono).

From 2014 to 2019: member of the enlarged commission of the Ph.D. School in Environment, Design and Innovation at the University of Campania "Luigi Vanvitelli" (Coordinator Prof. Mario Buono).

From 2011 to 2013: member of the Ph.D. School in Geotechnical Engineering (Coordinator Prof. Claudio Mancuso) at the consortium among University of Napoli Federico II, Second University di Napoli, University of Sannio, University of Salerno, University of Napoli Parthenope.

### 6. ORGANIZATION OF SCIENTIFIC EVENTS

#### **International scientific events**

2021: Chair of the Technical Committee of "The 1<sup>st</sup> Mediterranean Symposium on Landslides (MSL 2021) - Slope stability problems in stiff clays and flysch formations" (virtual, 7-9 June 2021).

2018: Chair of the Organizing Committee and Member of the Scientific Committee of "The 5<sup>th</sup> Italian Workshop on Landslides (IWL 2018) - Rainfall-induced landslides now-casting for early warning " (Napoli, 28-30 May 2018).

2016: member of the Organizing Committee of the "12<sup>th</sup> International Symposium on Landslides (ISL 2016) - Experience, Theory, Practice" (Napoli, 12-19 June 2016).

2015: member of the Organizing Committee of "The 4<sup>th</sup> Italian Workshop on Landslides (IWL 2015) – Slope movements interacting with man-made works. Precipitation-induced landslides: long-term factors and short-term triggers" (Napoli, 23-25 November 2015).

2013: member of the Organizing Committee of "The 3<sup>rd</sup> Italian Workshop on Landslides (IWL 2013) - Hydrological response of slopes through physical experiments, field monitoring and mathematical modelling" (Napoli, 23-24 October 2013).

2013: member of the Organizing Committee of "The 1<sup>st</sup> Mediterranean Workshop on Landslides (MWL 2013) - Landslides in hard soils and weak rocks: an open problem for Mediterranean countries (Napoli, 21-22 October 2013).

2011: member of the Organizing Committee of "The 2<sup>nd</sup> Italian Workshop on Landslides (IWL 2011) - Large slow active slope movements and risk management with a special session on landslide hydrology: hillslope hydrological modelling for landslides prediction" (Napoli, 28-30 September 2011).

2009: member of the Technical Committee of "The 1<sup>st</sup> Italian Workshop on Landslides (IWL 2009)" - Rainfall induced landslides: mechanisms, monitoring techniques and nowcasting models for early warning systems" (Napoli, 8-10 June 2009).

### **Italian scientific events**

2022: member of the Organizing Committee of the "Incontro Annuale dei Ricercatori di Geotecnica - IARG 2022" (Caserta, 7-9 September 2022).

# 7. RESEARCH PROJECTS

Since 2023 to date: Scientific Responsible for the Research Unit of University of Campania "Luigi Vanvitelli" of the Italian Ministerial Project PRIN 2022 PNRR "Towards a safe and low carbon future: a "green" approach to landslide risk mitigation" (National Coordinator: Prof. Gianfranco Urciuoli).

Since 2021 to date: competitive project "Mitigation of natural hazards for safety and mobility in mountain areas of Southern Italy" (MITIGO, ARS01\_00964), founded by the National Operational Programme (PON) on "Research and Innovation", https://www.mitigoinbasilicata.it (Scientific Responsible: Prof. Caterina Di Maio).

From 2019 to 2022: competitive project "SEND", financed by the program V:ALERE 2019 funded by the University of Campania "Luigi Vanvitelli" (Scientific Responsible: Prof. Roberto Greco).

From 2017 to 2020: member of the Multi-User Forum of the project HORIZON 2020 "CLARA, Climate forecast enabled knowledge services", grant agreement no. 730482 (European Coordinator Dott. Jaroslav Mysiak).

From 2017 to 2020: Italian Ministerial Project PRIN 2015 "Innovative monitoring and design strategies for sustainable landslide risk mitigation" (National Coordinator: Prof. Federica Cotecchia).

2017: Scientific Responsible of the Research Project E.F. 2017 "Analisi della risposta di depositi in terreni piroclastici a fenomeni di infiltrazione meteorica", funded by the Università of Campania "Luigi Vanvitelli".

2016: Scientific Responsible of the Research Project E.F. 2016 "Analisi della risposta di depositi in terreni piroclastici a fenomeni di infiltrazione meteorica", funded by the Università of Campania "Luigi Vanvitelli".

2015: Scientific Responsible of the Research Project E.F. 2015 "Ruolo del percorso di saturazione sulla risposta meccanica di un deposito naturale in terreni piroclastici", funded by the Second University of Naples.

2014: Scientific Responsible of the Research Project E.F. 2014 "Caratterizzazione idraulica di un deposito piroclastico parzialmente saturo soggetto ad eventi di pioggia", funded by the Second University of Naples.

2013: Research Project E.F. 2013 "Risposta idrologica di un pendio naturale in depositi piroclastici parzialmente saturi" (Scientific Responsible Prof. Luciano Picarelli), funded by the Second University of Naples.

From 2010 to 2011: Research Project "Pendii in depositi piroclastici sciolti parzialmente saturi: effetto delle piogge sulle condizioni di stabilità dei versanti" (Scientific Responsible: Prof. Luciano Picarelli), funded by the Second University of Naples.

From 2009 to 2012: European Project "Safeland - Living with landslide risk in Europe: assessment, effects of global change and risk management strategies", funded by the FP7 - 7th Framework Programme for research and technological development of the European Commission (European Coordinator: Norwegian Geotechnical Institute).

From 2008 to 2009: Italian Ministerial Project PRIN 2006 "Individuazione di soglie pluviometriche di criticità per frane distruttive a fini di protezione civile" (National Coordinator: Prof. Luciano Picarelli).

2005: Italian Ministerial Project PON 2000-2006 "PETIT-OSA Piattaforme Evolute di Telecomunicazioni e di Information Technology per l'Offerta di Servizi al Settore Ambiente".

### 8. TEACHING ACTIVITY

# In Italy

Since 2021 to date: "Principles of Geotechnics" (6 UFC), Bachelor Degree in Civil-Building-Environmental Engineering, University of Campania Luigi Vanvitelli.

From 2020 to 2021: "Fundamental of Geotechnics" (6 UFC), Bachelor Degree in Civil-Building-Environmental Engineering, University of Campania Luigi Vanvitelli.

Since 2014 to date: "Slope stability – Landslide mitigation measures" (9 UFC), Master Degree in Civil Engineering, University of Campania Luigi Vanvitelli.

From 2013 to 2014: "Slope stability – Landslide mitigation measures" (9 UFC), Master Degree in Civil and Environmental Engineering, Second University of Naples.

From 2012 to 2013: "Slope stability – Landslide mitigation measures" (9 UFC), Master Degrees in Civil Engineering and in Environmental Engineering, Second University of Naples.

From 2011 to 2012: "Landslide mitigation measures" (3 UFC), Master Degrees in Civil Engineering and in Environmental Engineering, Second University of Naples.

From 2008 to 2011: "Slope Stability" (6 UFC), Master Degrees in Civil Engineering and in Environmental Engineering, University of Basilicata.

### **Abroad**

2022: invited guest professor at the "Institute of Hydrogeology, Engineering Geology and Applied Geophysics" of the "Charles University" (Prague, Czech Republic), where he taught the course "Slope deformation and failure mechanisms" from 20 to 24 June 2022.

2014: invited guest professor, in the frame of an Erasmus Lifelong Learning Programme - Staff Mobility for Teaching Assignment (LLP/Erasmus - STA), at the "Ecole Polytechnique de Louvain - University Catholique of Louvain" (Louvain, Belgium)", where he taught the course "Mechanics of flow-like landslides in fine grained and granular soils" from 22 to 26 September 2014.

# 9. INSTITUTIONAL ACTIVITIES

Since 2011 to date: responsible of the Orientation activities for the Bachelor's and Master's students in Engineering at the Department of Engineering of the University of Campania Luigi Vanvitelli.

From 2021 to 2022: scientific responsible for the University of Campania Luigi Vanvitelli of the Italian project POT - Piani per l'Orientamento e il Tutorato "Ingegneria.POT".

2023: engaged by the Rector of University of Campania Luigi Vanvitelli as academic tutor for the Master's students in Civil Engineering who attended the Project "NEWPRO 2 - PROFESSIONISTI SI DIVENTA" funded by Campania Region.

2017-2018: engaged by the Rector of University of Campania Luigi Vanvitelli as academic tutor for the Master's students in Civil Engineering who attended the Project "NEWPRO - PROFESSIONISTI SI DIVENTA" funded by Campania Region.

From 2011 to 2019: local responsible for the national entrance tests took by the Bachelor's students in Engineering at the Department of Engineering of the University of Campania Luigi Vanvitelli.

From 2017 to 2019: academic member of the Teachers-Students Joint Commission at the School of Polytechnic and Basic Sciences of the University of Campania Luigi Vanvitelli.

From 2017 to 2018: engaged by the Rector of University of Campania Luigi Vanvitelli as academic tutor for the Master's students in Civil Engineering who attended the Project "NEWPRO - PROFESSIONISTI SI DIVENTA" funded by Campania Region.

2015: member of the Test Commission for the qualification to practice the Engineering profession.

2013: member of the Test Commission for the qualification to practice the Engineering profession.