

PAOLO TAROLLI



University of Padova
 Department of Land, Environment, Agriculture and Forestry
 viale dell'Università 16, 35020 Legnaro (PD), Italy
 ph: +39 (049) 8272677 / fax: +39 (049) 8272750
 skype: paolopaolo525
 e-mail: paolo.tarolli@unipd.it, tarolli.paolo@gmail.com
 ORCID: <http://orcid.org/0000-0003-0043-5226>
 SCOPUS author ID: 57212777181
 Publons: <https://publons.com/researcher/1191792/paolo-tarolli>
 Google Scholar: <https://scholar.google.com/citations?user=Ryfb3D8AAAAJ&hl=en>
 web-page: <http://www.tesaf.unipd.it/en/paolo-tarolli>

SUMMARY

Paolo Tarolli is Professor in *Integrated Watershed Management and Water Resources Management*, and Principal Investigator of *Earth Surface Processes and Society research group* at University of Padova (Italy). He is also Visiting Professor at Dalian University of Technology (P.R. China), and Adjunct Professor at University of Georgia (USA) and Alexandru Ioan Cuza University of Iași (Romania). He is *Deputy President* of the Natural Hazards Division of the European Geosciences Union (EGU), and *Vice President* of Soil and Water Conservation Division of Italian Society of Agricultural Engineering (AIIA).

He is expert in digital terrain analysis, earth surface processes analysis, natural hazards, geomorphology, hydro-geomorphology, lidar, structure-from-motion photogrammetry; new research directions include the analysis of topographic signatures and impact of human activities, focusing on agricultural landscapes & land degradation. Tarolli is *Chief Executive Editor* of Natural Hazards and Earth System Sciences, and *Associate Editor* of Remote Sensing, Land Degradation & Development, in addition to editorial board membership of other 8 journals. He is author of 138 papers (indexed in Scopus) published in international peer reviewed journals and books, with the following publication metrics: Google Scholar (**h-index 45**, total citations 6439, number of articles with 100+ citations 15, with 200+ citations 5, with 300+ citations 2, with 400+ citations 1), Scopus (**h-index 39**, tot. citations 4763). He is ranked in the list of **100,000 top world's most cited scientists** (source *PLOS Biology*). He has given 30 invited talks in high-ranking international research institutions and foreign Academies (i.e. Princeton University, Ecole Polytechnique Fédérale de Lausanne, Beijing Normal University, Dalian University of Technology, Tongji University, AgroParisTech, Massey University, Chinese Academy of Sciences), and at international meeting (IGC, AAG, ISPRS, RGS-IBG, AOGS, Soil Science Society of China). He was appointed as Panel Member of FTC (Portugal), FWO (Belgium), NERC (UK), NCN (Poland); reviewer of MIUR, Netherlands Organization for Scientific Research (NWO), U.S. National Science Foundation (NSF), International Swiss National Science Foundation (SNSF), Natural Environment Research Council (NERC), National Science Centre (NCN) of Poland, Natural Sciences and Engineering Research Council of Canada, FWF Austrian Science Fund, EU Commission research projects. He is member of the European Geoscience Union, British Society for Geomorphology, American Geophysical Union, Italian Association of Agricultural Engineering.

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EDUCATION

- 2006 **Ph.D.** Environmental watershed management and geomatics, University of Padova, Italy
 2001 **M.Sc.** Forest and Environmental Sciences, University of Padova, Italy

POSITIONS

Current positions

- 2020 – now **Visiting Professor.** Dalian University of Technology (P.R. China)
 2018 – now **Adjunct Professor.** Alexandru Ioan Cuza University of Iași (Romania)
 2017 – now **Adjunct Professor.** University of Georgia (USA)
 2015 – now **Associate Professor.** Department of Land, Environment, Agriculture and Forestry, University of Padova (Italy)

Previous positions

- 2017 **Visiting Professor.** Guangzhou University (P.R. China)
 2013 – 2019 **Visiting Professor.** China University of Geosciences, Beijing (P.R. China).
 2011 – 2014 **Assistant Professor.** Department of Land, Environment, Agriculture and Forestry, University of Padova (Italy)
 2011 – 2013 **Visiting Professor.** Earth Sciences Department, National Cheng Kung University (Taiwan)
 2011 **Visiting Professor.** School of Architecture, Civil and Environmental Engineering, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
 2010 **Marie Curie Fellow** (Experienced Researcher). Institute of Inland Waters, Hellenic Centre for Marine Research (Greece)
 2009 – 2013 **Adjunct Professor.** Marche Polytechnic University (Italy)
 2008 **Visiting Scholar.** Civil Engineering Dept. and St. Anthony Falls Laboratory, University of Minnesota, USA
 2006 – 2010 **Research Associate.** Department of Land, Environment, Agriculture and Forestry, University of Padova (Italy)
 2005 **Visiting Scholar.** Civil and Environmental Engineering Dept., Utah State University (USA)
 2002 – 2006 **Graduate Research Assistant.** Department of Land and Agroforest Environments, University of Padova (Italy)

TEACHING ACTIVITIES

Actual teaching activities

- 2021 – now ***Anthropocene, Landscape, Water, Soil*** | University of Padova (42 hr, 6 CFU)
 2016 – now ***Water Resources Management*** | University of Padova (48 hr, 6 CFU)
 2011 – now ***Integrated Watershed Management*** | University of Padova (48 hr, 6 CFU)

Past teaching activities

- 2014 – 2021 *GIS applications in agriculture* | University of Padova (32 hr, 4 CFU)
 2016 – 2019 *Digital Terrain Analysis* | China University of Geosciences in Beijing, P.R. China (32 hr)
 2014 – 2015 *Soil and Water Resources Management* | University of Padova (48 hr, 6 CFU)
 2017 *GIS analysis in lowland agricultural landscapes* | Guangzhou University, P.R. China (16 hr)
 2013 – 2014 *Digital Geomorphology & Statistical Analysis* | China University of Geosciences in Beijing, P.R. China (32 hr)
 2013 *Rural Hydraulics* | University of Padova (48 hr, 6 CFU)
 2013 *Digital Terrain Analysis* | National Cheng Kung University, Taiwan (50 hr)
 2012 – 2013 *Soil and Water Conservation* | Polytechnic University of Marche (54 hr, 6 CFU)
 2009 – 2011 *Soil and Water Conservation* | Polytechnic University of Marche (45 hr, 5 CFU)

SUPERVISION OF POSTDOCTORAL RESEARCH ASSISTANTS, PHD, MSc

Postdoctoral fellows

Supervised (tot 3): **Anton Pijl** (2020-2021); **Sara Cucchiaro** (2019-2020); **Giulia Sofia** (2013-2018) winner EGU Arne Richter Award 2019

PhD students

Supervised (tot 7): **Wendi Wang** (2020-2023) winner China Scholarship Council award, **Luca Mauri** (2019-2022) winner WASWAC Youth Outstanding Paper Award 2021, **Zhang Qifei** (2018-2021), **Anton Pijl** (2017-2020), **Wenfang Cao** (2017-2019) winner EGU ECSTS award & winner China Scholarship Council award, **Giulia Roder** (2016-2018) winner EGU travel award CNDS/EGU Summer School, **Massimo Prosdocimi** (2014-2017)

Co-Supervised (tot 7): **Alessia Giarola** (2021-2023) at University of Pavia; **Jian Luo** (2021-2022) at Sichuan Agricultural University; **Eros Borsato** (2017-2019) (EGU ECSTS award), **Kamila Pawluszek** (2017-2019) at Wroclaw University of Environmental and Life Sciences winner best national diploma thesis by Poland "Minister of Development, Labor and Technology"; **Jie Xiang** (2015-2018) at China University of Geosciences in Beijing; **Jin Wang** (2014-2018) at Chinese Academy of Science; **Ke Li** (2013-2015) at China University of Geosciences in Beijing.

MSc students

Supervised (tot 33): Burcu Berk (2021), Hiba Mohammad (2021), Lia Becvar (2021), Andrea Totti (2021), Elia Bortoletti (2020), Sofia Michieli (2020), Luigi Mancin (2020), Lorenzo Arcari (2020), Giacomo Nalin (2019), Eugenio Straffelini (2018), Edoardo Quarella (2018), Gaetano Imperatore (2018), Luca Mauri (2018), Michele Tosoni (2017), Loris Torresani (2017), Francesca Breda (2017), Elena Feo (2017), Manuel Stefani (2017), Jessica de Marco (2016), Federica Varisco (2016), Davide Todeschini (2016), Marco Cecchin (2016), Giulia Lo Re (2016), Federica Basso (2016), Nicoletta Pradetto Sordo (2016), Gianluca Favaro (2015), Alberto Bollettin (2015), Giulia Roder (2014), Valeria Contessa (2014), Francesca Savio (2013), Massimo Prosdocimi (2013), Manuela Mancini (2012), Francesca Brutti (2012)

Co-Supervised (tot 3): Aurora Ghirardelli (2019), and Esmee Goudriaan (2020) and Anton Pijl (2017) at Wageningen University and Research

RESEARCH PROJECTS

- 2019 – 2022 *SOILUTION SYSTEM* - Innovative solutions for soil erosion risk mitigation and a better management of vineyards in hills and mountain landscapes (EU rural dev. grant – Veneto Region) **450,000 €** (Scientific Coordinator, co-PI)
- 2019 – 2022 *FITOCHE* - From field to cheese (EU rural dev. grant – Veneto Region) **300,000 €** (PI of WP4)
- 2018 – 2023 *TerrACE* - Terrace Archaeology and Culture in Europe (ERC-AdG) **2,600,000 €** (PI of WP1)
- 2018 – 2021 *ViTe* - Vineyard Terraced landscapes: understanding the Environmental constraints to improve sustainable managements (University of Padova) **60,000€** (PI)
- 2016 – 2018 *HighLandDEM* - High-resolution Digital Elevation Models (DEM) in rainfed Mediterranean cultivated Landscapes for long-term monitoring of artificial features with hydrological impact (ENVIMED French cooperation initiative) **18,000€** (PI of WP2)
- 2015 – 2017 CPDR147412/14 - Artificial drainage networks evolution in a reclamation area of Veneto floodplain: evaluation of the NSI index (University of Padova) **46,666€** (PI)
- 2014 – 2020 New industrial plan for dairy sector (POR FESR – Veneto Region) **608,024€** (team member)
- 2012 – 2013 CPDR122903/12 - Use of high resolution topography for the automatic definition of geometric elements of the hydrographic network (University of Padova) **22,946€** (PI)

LEADERSHIP

- 2021 – now **Vice President** *Soil and Water Conservation division*, Italian Association of Agricultural Engineering (AIIA)

- 2019 – now **Deputy President** *Natural Hazards* division of the European Geosciences Union (EGU)
- 2018 – now **Principal Investigator** of Earth Surface Processes and Society research group (<https://www.linkedin.com/in/earthsurfs/>)
- 2018 – 2021 **Vice President** 7th section (Information and Communication Technologies) of the Italian Association of Agricultural Engineering (AIIA)
- 2016 – 2019 **Committee Chair** of the European Geosciences Union SSS subdivision SSS12: *Material and Methods in Soil Science*
- 2015 – 2020 **Science Officer** of the European Geosciences Union NH subdivision NH6: *Remote Sensing & Hazards*
- 2014 **Director**: UNIPD-NCKU (Italy-Taiwan) Joint Summer School 2014 “*Natural Hazards in the Italian Alps*”
- 2013 **Director**: EGU Summer School 2013 “*Understanding Earth-Surface Processes in the Alpine Environment from High Resolution Topography*”

INSTITUTIONAL RESPONSIBILITIES

- 2020 – now **Scientific Coordinator** of the joint academic cooperation between Beijing Forestry University and Dept. of Land, Environment, Agriculture and Forestry, University of Padova
- 2019 – now **Head of the Commission** for the ‘Third Mission’ & Communication of Dept. of Land, Environment, Agriculture and Forestry, University of Padova
- 2019 – now **Member** of the Teacher-Student Joint Commission for the School of Agriculture and Veterinary Medicine, University of Padova
- 2018 – now **Promoter** of the Joint-PhD program between China University of Geosciences and University of Padova.
- 2017 – now **Scientific Coordinator** of the Memorandum of Understanding between Massey University (NZ), University of Lincoln (UK), and University of Padova.
- 2017 – now **Scientific Coordinator** of the Memorandum of Understanding between China University of Geosciences and University of Padova.
- 2012 – now **Board Member** PhD Program Land, Environment, Resources and Health, University of Padova
- 2012 – 2019 **Member** of the Commission for the Internationalization, Dept. of Land, Environment, Agriculture and Forestry, University of Padova.
- 2012 – 2015 **Member** of Research Quality Evaluation Committee. Dept. of Land, Environment, Agriculture and Forestry, University of Padova

FELLOWSHIPS

- 2014 **Visiting Professor Appointment Agreement of Distinguished Scholars** at China University of Geosciences in Beijing (P.R. China)
- 2013 **Visiting Professor Appointment Agreement of Distinguished Scholars** at National Cheng Kung University (Taiwan)
- 2010 **Marie Curie Fellow** – Excellence Grant for Experienced Researcher within PreWEC project at the Hellenic Center for Marine Research (Greece)

HONORS/AWARDS

- 2019 **Top Peer Review Awards** (Clarivate Analytics - Web of Science)
- 2018 **Top Peer Review Awards** (Clarivate Analytics - Web of Science)
- 2017 **Top Peer Review Awards** (Clarivate Analytics - Web of Science)
- 2017 **Outstanding Editor** *Journal of Mountain Science* (Chinese Academy of Sciences)
- 2014 **Most Cited Publication** “*Tarolli et al. 2014*”, journal *Anthropocene* (awarded by Elsevier)
- 2012 **Best Poster Award**, XXXIII Italian Conference of Hydraulics and Hydraulic Constructions
- 2011 **Editors’ Citation** for Excellence in Refereeing for WRR given by American Geophysical Union
- 2010 **Outstanding Reviewer** for the *Journal of Hydrologic Engineering*, ASCE
- 2010 **Best Poster Award**, XXXII Italian Conference of Hydraulics and Hydraulic Constructions

COMMISSION OF TRUST

Appointment as Panel Member or external assessor of international research projects

- 2021 [Panel member](#) CEECInd 4th Ed | Earth and Environmental Sciences Panel, **Fundação para a Ciência e a Tecnologia FTC** (Portugal) (*tot. 22 projects evaluated*)
- 2021 Earth sciences (ST10) [Expert Panel](#), **National Science Centre NCN** (Poland) (*tot. 13 projects evaluated*)
- 2021 [WT 8 Fellowship Panel](#) on Sciences of the Earth and Space – **Research Foundation Flanders FWO** (Belgium) (*tot. 10 projects evaluated*)
- 2020 – 2021 [Co-Chair Panel](#) of the Complaint Analysis (Natural Science) in the R&D Units Evaluation 2017-18 - **Fundação para a Ciência e a Tecnologia FTC** (Portugal) (*tot. 4 projects evaluated*)
- 2020 – now [Member Review College](#) **Research Foundation Flanders FWO** (Belgium)
- 2018 [Panel Member](#) **NERC: Newton Fund** (United Kingdom) (*tot. 7 projects evaluated*)

Haward/Prize Committee

- 2021 [Member Evaluation Panel](#) of **WASWAC Youth Paper Award 2021** (World Association of Soil and Water Conservation)
- 2019 – now [Member Evaluation Panel](#) of **ECS award EGU Natural Hazards Division** (EGU)

Reviewer

- 2013 – now Italian Ministry of Education University and Research, Ministry of Education and Science (Rep. Kazakhstan), US National Science Foundation, Netherlands Organization for Scientific Research (NWO), National Science Centre of Poland, Natural Sciences and Engineering Research Council of Canada, Swiss National Science Foundation, FWF Austrian Science Fund (*tot 18 projects revised*)

PHD COMMITTEE EVALUATION PANEL

- 2011 – 2019 (*tot. 5 committees*): Montpellier SupAgro - INRA (France); University of Trieste (Italy); Ecole Polytechnique Fédérale de Lausanne (Switzerland); University of Genova (Italy); Ecole Nationale Supérieure des Mines de Saint-Etienne, Alès (France)

EDITORIAL POSITIONS

Chief Executive Editor: Natural Hazards and Earth System Sciences (Copernicus)

Associate Editor (*tot. 2*): Land Degradation & Development (Wiley), Remote Sensing (MDPI)

Editorial Board Member (*tot. 8*): iScience (Cell Press), Earth Surface Processes and Landforms (Wiley), Anthropocene (Elsevier), International Soil and Water Conservation Research (Elsevier), Geography and Sustainability (Elsevier), Journal of Mountain Science (Springer), Heliyon (Cell Press), Quaternary (MDPI)

REVIEWER ACTIVITY

tot. 430 papers reviewed, <https://publons.com/researcher/1191792/paolo-tarolli/> including Science, Nature

PUBLIC ENGAGEMENT ACTIVITY

Social Media

Administrator of the page *Earth Surface Processes & Society* (*tot. 15889 followers*): Facebook (2621 followers), LinkedIn (11177 followers), WeChat (1366 followers), Twitter (513 followers), Instagram (212 followers).

Legnaro (PD), September 14, 2021

Public events

- 2021 **Organization & Moderator:** Seminar series Italian Society of Agricultural Engineering - AIIA (section "land and water use") (24 seminars - average 50 participants per seminar in Zoom)
- 2020 **Organization & Moderator:** "Climate change and forests: a challenge for sustainability", Sustainable Development Festival 2020
(tot. 151 participants in Zoom, 1295 visualizations on Facebook, 247 visualizations on Youtube)
- 2020 **Organization:** public event "Active protection of Val d'Alpone", for the celebration of 2nd edition of Agricultural Product Expo of Val d'Alpone and Val Tramigna
(participation of 7 mayors, stakeholders, citizens)
- 2019 **Organization with Coldiretti farmers' federation of Padova:** public event for citizens, at the municipal theater of Galzignano Terme, to disseminate the results of the research on the quantification and glocalizations of wild boar damages in the Euganean Hills Regional Park (Veneto, Italy)
(150 participants: Ministry of Agriculture of the Veneto Region, President and Director of the Padua Coldiretti farmers' Federation, association of hunters, technicians, environmentalists, director of the Euganean Hills Regional Park, citizens)

MEDIA IMPACT OF THE RESEARCH ON NATIONAL NEWS

Soilution System Project (results of the project)

Gambero Rosso, VineNews, Qwine, l'Arena di Verona, Venezie Channel, Foodaffairs, Enocibario, Coldiretti Verona, Civiltà del bere, Veronaeconomia,

Quantification and glocalizations of wild boar damages (paper published on Earth Surf. Proc. Land.)

Il Corriere della Sera, Il Gazzettino, Il Mattino, Padova Oggi, TG Padova, ANBI Veneto, Coldiretti magazine nazionale, La Dea della Caccia, BigHunter, Cacciando

Quantification and glocalizations of Nutria damages (paper published on Earth Surf. Proc. Land.)

Radio RAI due (Caterpillar), Il Corriere della Sera, Il Sole 24 Ore, Il Gazzettino, Il Mattino, Il Giornale di Vicenza, L'Arena di Verona, Oggi Treviso, ANBI Veneto, Qdpnews, Virgilio, TVIWEB, Il Bolive

Floods and insurance (paper published on Int. J. Disaster Risk Reduction)

Il Giornale di Vicenza

100yr of floods in the Veneto region (paper published on Scientific Reports)

Ansa, Il Giornale di Vicenza, Il Mattino, PadovaOggi, Vigonza, La Difesa del Popolo, L'Azione, Meteoweb, Il Bolive

KNOWLEDGE TRANSFER TO STAKEHOLDERS

- 2019 – 2021 **Soave Wine Consortium:** Innovative & low-cost solutions for soil erosion risk mitigation and a better management of vineyards in hills and mountain landscapes
- 2017 – 2018 **Coldiretti farmers' federation of Padova:** low cost approach for wild boar's damages
2D mapping
- 2016 – now **Instructor** of young agricultural entrepreneurs (8hr per year; Coldiretti, Italian farmers' federation)
- 2012 – 2015 **Start Up** Geomatica & Ambiente srl

SCIENTIFIC NETWORK

Ciprian Margarint, *geomorphology and hazards*, Alexandru Ioan Cuza University of Iasi (Romania)
 Erle C. Ellis, *Anthropocene debate*, University of Maryland (USA)
 Federico Preti, *agricultural terraces*, University of Florence (Italy)
 Jean-Stéphane Bailly, *remote sensing analysis of agricultural landscapes*, AgroParisTech (France)
 Jianping Chen, *open-pit mining monitoring with UAV*, China University of Geosciences (P.R. China)
 Mark Macklin, *floods & human health in anthropogenic landscapes*, University of Lincoln (UK)
 Marco Cavalli, *Earth surface processes analysis with lidar*, CNR Irpi Padova (Italy)
 Nunzio Romano, *surface runoff in agriculture*, University of Naples Federico II (Italy)
 Tony Brown, *agricultural terraces*, UiT The Arctic University of Norway (Norway)
 Xiangzhou Xu, *soil and water conservation*, Dalian University of Technology (P.R. China)
 Zhifeng Wu, *human-induced land-use change effect on the environment*, Guangzhou Univ. (P.R. China)

ORGANIZATION OF INTERNATIONAL CONFERENCES & SCIENTIFIC MEETINGS

International Conferences (*tot. 4 organized*)

- 2021 AOGS-EGU Joint Conference on New Dimensions for Natural Hazards in Asia: **Scientific Committee**
- 2021 Int. Forum Land Degradation, Soil Conservation and Sust. Development: **President Organizing Committee** (supported by World Association of Soil and Water Conservation, Italian Society of Agricultural Engineering, Soil and Water Conservation Society in China, Univ. of Padova, Dalian Univ. of Tech.)
- 2020 AOGS-EGU Joint Conference on New Dimensions for Natural Hazards in Asia: **Scientific Committee**
- 2020 Int. Workshop on "Remote Sensing for land degradation analysis and sustainable management of agroforestry systems": **Chairman Organizing Committee** (organized by Italian Society of Agricultural Engineering)(webinar, 400 participants)

European Geosciences Union (*tot. 29 sessions convened*)

- EGU2021, NH6.7 "Application of remote sensing and Earth-observation data in natural hazard and risk studies"
- EGU2021, SSS11.1/GI6.6 "Development of New Technologies in Soil Conservation and Eco Sustainability"
- EGU2020, EBM7 "Editorial board meeting of Natural Hazards and Earth System Sciences (NHSSS)"
- EGU2020, NH6.1/GM2.24 "Application of remote sensing and Earth-observation data in natural hazard and risk studies"
- EGU2020, SSS11.4 "Development of new technologies in soil conservation and eco sustainability"
- EGU2019, NH6.1/GI3.20/HS11.38 "Application of remote sensing and Earth-observation data in natural hazard and risk studies"
- EGU2019, SSS12.3 "New technologies in soil conservation and eco-sustainability: supporting decision making"
- EGU2018, HS2.2.3 "Lowlands: A hydrologic challenge in the global environmental change era"
- EGU2018, NH6.1/AS5.21/CR7.3/GI2.17/HS11.33/SM3.12/SSS13.54 "Application of remote sensing and Earth-observation data in natural hazard and risk studies"
- EGU2018, NH9.4 "Natural hazard impacts on technological systems and infrastructures"
- EGU2018, SSS2.3/GM6.11/NH11.2 "Agricultural terraces of the world. Their pedological, geomorphological and hydrological role"
- EGU2017, GM13.1/SC1 "Short course in geomorphometry: Getting the most out of DEMs of Difference"
- EGU2017, HS2.2.3 "Lowlands: A hydrologic challenge in the global environmental change era"
- EGU2017, NH3.12 "Landslide and Landslide Susceptibility Interactions with Transport Lines"
- EGU2017, SMP48 "Subdivision SSS12: Material and Methods in Soil Science (public)"
- EGU2017, SSS2.16/GM7.7/HS11.50 "Agricultural terraces of the world. Their pedological, geomorphological and hydrological role"
- EGU2017, SSS10.8/BG9.6/HS9.11 "Soil Erosion, hydrological processes and biological degradation in worldwide vineyards"
- EGU2016, GM6.1/BG7.5/HS11.13/SSS2.22 "Human-Landscape interaction in the Anthropocene"
- EGU2016, GM13.1/SC10/SSS12.25 "Digital Terrain Analysis of Anthropogenic Landscapes"
- EGU2016, SSS2.10/GM6.8/HS11.29/NH3.19 "Agricultural terraces of the world. Their pedological, geomorphological and hydrological role"
- EGU2015, GM4.1 "Human-Landscape interaction in the Anthropocene"
- EGU2015, GM11.3/SC48 "Quantitative interrogation of high-resolution DTMs"
- EGU2015, SSS2.5/GM6.6/HS12.3 "Agricultural terraces of the world. Their pedological, geomorphological and hydrological role"
- EGU2014, GM2.1 "Digital Landscapes: Insights into geomorphological processes from quantitative interrogation and use"
- EGU2014, GM4.1/HS9.12/SSS9.18 "Human-Earth interaction from the Pleistocene to the Anthropocene: state of the science and future direction (co-organized)"
- EGU2013, GM2.1 "Digital Landscapes: Insights into geomorphological processes from high-resolution topography, quantitative interrogation and geomorphological mapping"
- EGU2013, GM4.2/SSS6.12 "Landscape in the Anthropocene: state of the art and future directions"
- EGU2012, GM2.2 "Digital Landscapes: Quantitative Interrogation and Use to Examine Geomorphic Processes"
- EGU2011, GM2.2/NH10.3/PS10.2 "Digital Landscapes: From Laser Scanning and High-resolution Measurement Technologies to Quantitative Interrogation of Geomorphic Processes"

American Geophysical Union (*tot. 3 sessions convened*)

- AGU2020, INV12 - Earth, Agriculture, and Society: Toward Sustainable Development in the Anthropocene
- AGU2018, Fingerprinting the Anthropocene: Observing and Understanding Social Change Across Earth's

Landscapes
AGU2007, H43E/H51L/H52E Remotely Sensed DTMs for Hydrogeomorphic Applications

MEMBERSHIP OF SCIENTIFIC SOCIETIES

2012 – now Italian Association of Agricultural Engineering (AIIA)
2011 – now British Society for Geomorphology (BSG)
2006 – now European Geosciences Union (EGU)
2005 – now American Geophysical Union (AGU)

INVITED TALKS

International Meetings (tot. 11)

- 2021 *Earth, Agriculture, and Society: towards sustainable development in the Anthropocene*. [International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 \(LASOSU2021\)](#), online, Dalian (P.R. China).
- 2021 *The Geomorphology of Life*. [EGU General Assembly 2021 \(vEGU21\)](#).
- 2021 *Advanced remote sensing techniques for monitoring anthropogenic landscapes*. [EGU General Assembly 2021 \(vEGU21\)](#).
- 2019 *High resolution geomorphologic characterization of conservation agriculture*. [General Assembly 2019 of the Soil Science Society of China](#), Dalian (PR China).
- 2018 *Observing and understanding the impact of socio-economic change on Earth and human health*. [Water and Planetary Health: A Catchment Systems Approach symposium](#) - University of Lincoln, Lincoln (UK).
- 2017 *The geomorphology of humanity*. [The 33rd Romanian Symposium of Geomorphology](#), Iasi (Romania). *Keynote talk*
- 2016 *Roads and agricultural terraces in the mountain areas of the world: their geomorphological and hydrological role*. [The 33rd International Geographical Congress](#), Beijing (P.R. China). *Keynote talk*
- 2016 *Hillslope Processes in Anthropogenic Landscapes*. [AAG 2016](#), San Francisco (USA).
- 2015 *High-resolution topography for understanding Earth surface processes: Opportunities and challenges*. [ISPRS Geospatial Week 2015](#), Montpellier (FR). *Keynote talk*
- 2015 *Geomorphology & Anthropocene*. [RGS-IBG Annual International Conference](#), Exeter (UK).
- 2012 *Opportunities and challenges from high-resolution topography for understanding earth surface processes*. [AOGS – AGU \(WPGM\) Joint Assembly 2012](#), Singapore.

International Academies & Research Institutions (tot. 19)

- 2020 Digital terrain analysis for soil and water conservation. [Dalian University and Technology](#) (P.R. China). (host: Xiangzhou Xu)
- 2020 *Monitoring and sustainable management of steep-slope agricultural landscapes: the case study of Italy*. [Beijing Normal University](#) (P.R. China). (host: Chengzhong Pan)
- 2019 *Landscapes in the Anthropocene*. [Tongji University](#) (P.R. China). (host: Chen Kangli)
- 2019 *Humans and the Earth's Surface*. [Princeton University](#) (USA). (host: Amilcare Porporato)
- 2019 *High-resolution topography for understanding Earth surface processes: opportunities and challenges*. [Dalian University and Technology](#) (P.R. China). (host: Xiangzhou Xu)
- 2017 *The Topographic Signature of Humanity*. [Beijing Normal University](#) (P.R. China). (host: Wenwu Zhao)
- 2016 *Earth surface processes in anthropogenic landscapes*. [Guangzhou University](#) (P.R. China). (host: Wu Zhifeng)
- 2015 *High-resolution topography for understanding Earth surface processes: opportunities and challenges*. Innsbruck Summer School of Alpine Research 2015. (host: [University of Innsbruck](#), Faculty of Geo- and Atmospheric Sciences & International Society for Photogrammetry and Remote Sensing - ISPRS)
- 2015 *Anthropogenic Landscapes: critical issues and future challenges for Earth Science and Society*. [Massey University](#) (New Zealand). (host: Ian Fuller)
- 2014 *Anthropogenic Landscapes: critical issues and future challenges for Earth Science and Society*. Institute of Mountain Hazards and Environment, [Chinese Academy of Sciences](#), Chengdu. (host: Peng Cui)

- 2013 *High-resolution topography: the next chapter for the Earth science*. China University of Geosciences, Beijing. (host: Chen Jianping)
- 2012 *Natural and Engineered Landscapes: new challenges from LiDAR for understanding Earth Surface Processes in the Anthropocene*. National Cheng Kung University, Department of Earth Science, Tainan (Taiwan). (host: Ching-Weei Lin)
- 2011 *New opportunity and future challenges from high-resolution topography for the analysis of Earth Surface Processes*. Central Geological Survey, Taipei (Taiwan). (host: Chao-Tsiung Lin)
- 2011 *New opportunity and future challenges from high-resolution topography for the analysis of Earth Surface Processes*. National Cheng Kung University, Department of Earth Science, Tainan (Taiwan, R.O.C.). (host: Ching-Weei Lin)
- 2011 *New opportunity and future challenges from high-resolution topography for the analysis of Earth Surface Processes*. AgroParisTech, Montpellier, France. (host: Jean-Stephane Bailly)
- 2011 *New opportunities but also challenges from high-resolution topography*. École Polytechnique Fédérale de Lausanne EPFL, Switzerland. (host: Andrea Rinaldo)
- 2010 *High-resolution topography: new opportunities, issues and challenge in the Earth Science*. Institute of Inland Waters, Hellenic Centre for Marine Research, Greece. (host: Emmanouil Anagnostou)
- 2010 *Semi-automatic methods for geomorphic features extraction: new opportunities from high-resolution topography*. CNR-IRPI. Perugia, Italy. (host: Fausto Guzzetti)
- 2008 *High-resolution topography: new opportunities, issues, and future trends*. Civil Engineering Dept. and St. Anthony Falls Laboratory, University of Minnesota, Minneapolis, USA. (host: Efi Foufoula-Georgiou)

PUBLICATION SUMMARY

Author of 138 papers (indexed in Scopus) published in international peer reviewed journals and books with the following publication metrics: Google Scholar (**h-index 45**, total citations 6439, number of articles with 100+ citations 15, 200+ citations 5, 300+ citations 2, 400+ citations 1), SCOPUS (**h-index 39**, total citations 4763). He is also author of 11 papers in national magazines, 2 chapters in Encyclopaedia, 18 papers/chapters in books, 25 papers in conference proceedings, and 198 presentations (11 invited talks) at national/international meetings (63 orals, 20 virtual online, and 115 posters). He edited three books.

Ranked in the list of **100,000 top world's most cited scientists: rank #104049** for career in all disciplines, **rank #18101** in all disciplines and **rank #82** (top 0.6%) in the category *geography* for single year 2019 (excluding self-citations), source *PLOS Biology*: <https://doi.org/10.1371/journal.pbio.3000918>.

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*corresponding author

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- Mauri*, L., Straffelini, E., **Tarolli, P.** (2021). Multi-temporal modeling of road-induced overland flow alterations in terraced landscape characterized by shallow landslides. *International Soil and Water Conservation Research*, doi:10.1016/j.iswcr.2021.07.004.
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CONFERENCE PRESENTATIONS

Oral

1. **Tarolli P.** (2021). Earth, Agriculture, and Society: towards sustainable development in the Anthropocene, *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian] [Invited talk](#)
2. Mauri L., Straffelini E., Cucchiario S., **Tarolli P.** UAV-SfM 4D mapping of landslides activated in a steep terraced agricultural area. *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian]
3. Mauri L., Straffelini E., **Tarolli P.** Multi-temporal modeling of road-induced overland flow alterations in a terraced landscape characterized by shallow landslides. *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian]
4. Cucchiario S., Fallu D.J., Zhang H., Walsh K., Van Oost K., Brown A.G., **Tarolli P.** (2021). Data fusion for monitoring agricultural terraces in complex topographic and landcover conditions. *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian]
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7. Straffelini E., Pijl A., **Tarolli P.** Remote sensing and field-based approach in understanding soil erosion mitigation through grass cover in steep vineyards. *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian]
8. Straffelini E., Cucchiario S., **Tarolli P.** Surface water ponding in lowland agriculture: a rapid mapping approach using UAV-SfM. *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian]

9. Pijl A., **Tarolli P.**, Straffelini E., Wang W. Massive evaluation of soil and water conservation in 50 Italian steep-slope vineyards by a systematic remote sensing-based approach. *International Forum on Land Degradation, Soil Conservation and Sustainable Development 2021 (LASOSU2021)*, online, [Dalian]
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12. Mauri L., Straffelini E., Cucchiario S., **Tarolli P.** UAV-SfM 4D mapping of landslides activated in a steep terraced agricultural area. *AgEng2021, New Challenges for Agricultural Engineering towards a Digital World*, online, [Evora, Portugal]
13. Straffelini E., Pijl A. Turco F., **Tarolli P.** Preliminary exploration of potential ponding impact on crop vigour using remote sensing techniques. *IEEE international workshop on metrology for agriculture and forestry*, online, [Trento-Bolzano, Italy]
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34. **Tarolli, P.** (2016) Hillslope Processes in Anthropogenic Landscapes. *AAG Annual Meeting 2016*, San Francisco (USA). *Invited talk*
35. **Tarolli, P.** (2015) High-resolution topography for understanding Earth surface processes: Opportunities and challenges. *ISPRS Geospatial Week 2015*, Montpellier (FR). *Invited talk - Keynote talk*
36. **Tarolli, P.** (2015) Geomorphology & Anthropocene. *RGS-IBG Annual International Conference 2015*, Exeter (UK). *Invited talk*
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42. Prosdocimi, M., Sofia, G., Dalla Fontana, G., **Tarolli, P.** (2013). Land use change in the Veneto floodplain and consequences on minor network drainage system. *AIIA 2013 (X Conference of the Italian Society of Agricultural Engineering)*. [Viterbo]
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44. Sofia, G., **Tarolli, P.**, Cazorzi, F., Dalla Fontana, G. (2013). Automatic measurement of bankfull widths from high resolution LiDAR DTMs: a new tool to analyze the link between hydraulic and morphological variables. *Geophysical Research Abstracts*, 15, EGU2013-5494, eISSN: 1607-7962. [Wien]
45. Tseng, C.-M., Lin, C.-W., Dalla Fontana, G., **Tarolli, P.** (2013). The topographic signature of a Major Typhoon. *Geophysical Research Abstracts*, 15, EGU2013-3132, eISSN: 1607-7962. [Wien]
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48. **Tarolli, P.** (2012). Opportunities and Challenges from High Resolution Topography for Understanding Earth Surface Processes. Abstract SE101-D5-AM1-Vir3-004 (SE101-A002) presented at AOGS – AGU (WPGM) Joint Assembly 2012. [Singapore] *Invited talk*
49. Sofia, G., Dalla Fontana, G., **Tarolli, P.** (2012). LiDAR and Geomorphic Parameters for Anthropogenic Feature Extraction in Floodplains. Abstract IWG04-D5-AM2-Leo3-003 (IWG04-A007) presented at AOGS – AGU (WPGM) Joint Assembly 2012. [Singapore]
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 58. **Tarolli, P.**, Dalla Fontana, G., Moretti, G., Orlandini, S. (2009). Cell Size Dependence of Threshold Conditions for the Delineation of Drainage Networks from Gridded Elevation Data. *Geomorphometry 2009*, University of Zurich. [Zurich]
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9. Zhao P., J. Fallu D., Cucchiaro S., **Tarolli P.**, Waddington C., Cockcroft D., Snape L., Lang A., Doetterl S., G. Brown A., Van Oost K. (2021). SOC stabilization mechanisms and temperature sensitivity in old terraced soils, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-9099, <https://doi.org/10.5194/egusphere-egu21-9099>.
10. Mauri L., Straffellini E., **Tarolli P.** (2021). Modelling of overland flows in a terraced vineyard affected by road-induced shallow landslides, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-4955, <https://doi.org/10.5194/egusphere-egu21-4955>.

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Paolo Tarolli