

## CURRICULUM VITAE

Nicola Surian

### EDUCATION:

1991-1995: Ph.D. in Earth Sciences at the University of Padova, with a dissertation on the "The fluvial terraces in the Vallone Bellunese, Venetian Alps" (in Italian). Supervisor: Prof. Giovanni Battista Pellegrini.

1991: Graduate in Geological Sciences at the University of Padova, with a thesis in geomorphology and remote sensing. Supervisors: Prof. G.B. Pellegrini and Dr. B. Marcolongo.

### EMPLOYMENT HISTORY:

2018-: Full Professor at the Dept. of Geosciences of the University of Padova.

2014-2018: Associate Professor at the Dept. of Geosciences of the University of Padova.

2012-2014: Researcher (Assistant Professor) at the Dept. of Geosciences of the University of Padova.

2004-2011: Researcher (Assistant Professor) at the Dept. of Geography of the University of Padova.

2001-2003: Geologist at the Autorità di Bacino dei fiumi Isonzo, Tagliamento, Livenza, Piave, Brenta-Bacchiglione (Venice): his activity dealt mainly with fluvial issues.

2000-2001: Research fellowship (for 2 years) at the Dept. of Geology, Palaeontology and Geophysics (University of Padova).

1998-2000: Professional geologist working on geological mapping within the National Project CARG-P.A.T. (Sheet n. 25 "Rabbi").

1996-1998: Post Doctoral Fellow (for 2 years), Dept. of Geology, Palaeontology and Geophysics, University of Padova. Research in fluvial geomorphology.

1995: Visiting Scholar (for 6 months) with the "Sediment Transport and Geomorphology Research Group" of the U.S. Geological Survey in Boulder (Colorado, U.S.A.).

### RESEARCH EXPERIENCE:

Principal scientist in the following projects:

- "Application of the MQI (Morphological Quality Index) to selected streams of the Veneto Region, identified as possible highly modified water bodies" – funded by the Regional Environmental Agency (ARPAV). Budget: the total budget project is 39,200 €. Status of the project: project funded in 2017; started in July 2017, ended in November 2018.
- Cariparo Excellence Research Project 2008-2009 – funded by Cariparo Foundation. Title: "Linking geomorphological processes and vegetation dynamics in gravel-bed rivers". Budget: the total budget project is 297,000 €. Status of the project: project funded in 2009; started in September 2009 and ended in February 2013. Participants: University of Padova (N. Surian and M.A. Lenzi); University of Trento (M. Tubino).
- PRIN 2007 – funded by Ministry of University and Research (MIUR). Title: "Present evolutionary trends and possible future dynamics of alluvial channels in Northern and Central Italy". Budget: the total project budget is 190,000 €; the budget managed by N. Surian for the University of Padova unit is 35,000 €. Status of the project: Project funded in 2008; started in September 2008 and ended in September 2010. Participants: University of

- Padova (N. Surian - Project Leader); University of Firenze (M. Rinaldi); University of Pavia (L. Pellegrini), IRPI-CNR – Torino (G. Lollino).
- PRIN 2005 – funded by Ministry of University and Research (MIUR). Title: “Present and recent dynamics of river channels in Northern and Central Italy: evolutionary trends, causes and management implications”. Budget: the total project budget is 108,657 €; the budget managed by N. Surian for the University of Padova unit is 36,600 €. Status of the project: Project funded in 2005; started in January 2006 and ended in January 2008. Participants: University of Padova (N. Surian - Project Leader); University of Firenze (M. Rinaldi); University of Pavia (L. Pellegrini).
  - Funds from the University of Padova (ex 60% funds) during the period 2004-2018: Titles of the projects: “Present and recent dynamics of river channels in Italy”, “Stream monitoring, modelling and management”; the total budget for 2004-2018 is 49,700 €.

Main research projects (not as a principal scientist):

- 2014-2017: “Etsch-2000. Evolution of the Etsch River: historical changes in channel morphology over 2 millenia” project funded by Provincia Autonoma di Bolzano; principal investigator: Prof. Guido Zolezzi (University of Trento).
- 2014-2016: “Analysis of sediment management in the Adda, Mera and Oglio rivers (Central Alps, Italy)”, project funded by Regione Lombardia; principal investigator: Dr. Fabio Luino (CNR-IRPI); budget managed by N. Surian for the University of Padova unit: 60,000 €.
- 2011-2015: EU-FP7 Project "REstoring rivers FOR effective catchment Management" (REFORM), coordinator Dr. Tom Buijse (Deltares); involved in the research unit of the University of Firenze led by Prof. M. Rinaldi.
- 2010-2013: research project funded by ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale) for the “Development of a general framework for analysis, post-monitoring assessment and definition of mitigation actions according European Directives 2000/60/CE e 2007/60/CE”; principal investigator: Prof. M. Rinaldi.
- 2009-2013: Strategic Project funded by University of Padova “Geological, morphological and hydrological processes: monitoring, modelling and impact in the North-Eastern Italy” (principal investigator: Prof. R. Genevois).
- 2009-2010: research project funded by ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale) to define a methodology for hydromorphological classification and monitoring of Italian rivers (according to guidelines of the Water Framework Directive 2000/60/CE); principal investigator: Prof. M. Rinaldi.
- 2008-2010. University of Padova project “Sediment production, transfer and deposition in the Piave River basin in relation with climate changes and human impact from the Last Glacial Maximum to the Present” (principal investigator: Prof. A. Carton).
- 2003-2004: MIUR-Cofin2002 - "Slope geomorphological evolution and climatic changes: analysis of landslides and paleoclimatic reconstructions" (national co-ordinator: Prof. M. Soldati; principal investigator of Padova research unit: Prof. G.B. Pellegrini).
- 2000-2001: MURST-Cofin99 - “Landslides as indicators of climatic changes from Late Glacial to present” (national co-ordinator: Prof. M. Panizza; principal investigator of Padova research unit: Prof. G.B. Pellegrini).
- 1998-1999: MURST-Cofin97 - “Response of geomorphological processes to environmental changes” (national co-ordinator: Prof. A. Biancotti; principal investigator of Padova research unit: Prof. G.B. Pellegrini).
- 1992-1993: EU-EPOCH Project - “Temporal occurrence and forecasting of landslides in the European Community” (co-ordinator: Prof. J.C. Flageollet).

### Conference and session organization:

- Member of the organizing committee of the 1<sup>st</sup> National Conference of AIGeo, held at the Dept. of Geography of the University of Padova in 2005.
- Chairman of the session “Present and recent dynamics of river channels in Italy”, held at the “GeoItalia2007” Conference (Rimini – 2007).
- Chairman of the session “Monitoring, modelling and management of alluvial channels”, held at the “Geoitalia2009” Conference (Rimini – 2009).
- Chairman of the session “Fluvial Hydromorphology”, held at the “Geoitalia2011” Conference (Torino – 2011).
- Chairman of the session “Braided rivers: insights from new monitoring and modelling techniques” held at the EGU 2012 Conference, Vienna (22 - 27 April 2012).
- Member of the Scientific Committee of the 2<sup>nd</sup> Italian Conference on River Restoration, Bolzano, 6-7 November 2012.
- Chairman of the session “Fluvial dynamics and river management” (chairman: Surian N., Rinaldi M.), held at the “Geoitalia 2013” Conference (Pisa, 16-18 September 2013).
- Chairman of the session “Sediment fluxes and morphodynamics of stream channels” (chairman: Recking A., Pitlick J., Church M., Surian N.), held at 8th IAG International Conference on Geomorphology, Paris (France), 27-31 August 2013.
- Organizing committee of the “Braided River Workshop”, Die (France), 23-27 June 2014.
- Chairman of the session “Fluvial processes and landforms”, 9<sup>th</sup> International Conference on Geomorphology, New Delhi (India), 6-11 November 2017.

### Review of papers for:

International journals (review of about 135 paper from 2005 to 2018): Advances in Water Resources; Anthropocene; Applied Geography; Aquatic Sciences; Catena; Earth Surface Processes and Landforms; Earth Surface Dynamics; Environmental Fluid Mechanics; Environmental Management; Geodinamica Acta; Geografia Fisica e Dinamica Quaternaria; Geomorphology; Géomorphologie; Global and Planetary Change; Hydrological Processes; Hydrology and Earth Systems Sciences; Journal of Environmental Management; Journal of Geophysical Research; Journal of Hydrology; Journal of Atmospheric and Oceanic Technology; Journal of Soils and Sediments; Land Use Policy; Natural Hazards and Earth System Sciences; Quaternary International; Rendiconti Lincei; Rendiconti Online della Società Geologica Italiana; River Research and Applications; Science of the Total Environment; Scientific Reports; Sedimentology; Water Resources Research; Wires Water; Zeitschrift fur Geomorphologie.

National journals: Italian Journal of Engineering Geology and Environment; Il Quaternario; Memorie di Scienze Geologiche; Natural Hazards and Earth System Sciences; Supplementi di Geografia Fisica e Dinamica Quaternaria.

Books: IAHS Red Book Series; Developments in Earth Surface Processes (Elsevier); “Gravel-bed rivers 6” (Elsevier).

### Review of research projects funded by:

Swiss National Foundation;

Netherlands Organization for Scientific Research;

UEFISCDI - Executive Agency for Higher Education, Research, Development and Innovation Funding (Romania);

National Science Centre of Poland;

Ministry of Business, Innovation and Employment of New Zealand;

MIUR;

Provincia Autonoma di Trento.

### Affiliations:

- Italian Association of Physical Geography and Geomorphology (AIGeo) (since 1992)
- Italian Association of Remote Sensing (AIT) (since 1992)
- Italian Centre for River Restoration (CIRF) (2001-2010)
- Geological Society of America (2007-2009)
- American Geophysical Union (since 2008)

Member of the Executive Committee of AIGeo (2019-2021).

Coordinator of the Working group “Hydrology and fluvial geomorphology” of AIGeo since 2012.

### **TEACHING EXPERIENCE:**

#### Courses:

At present teaching “Physical geography and geomorphology” and “Geomorphological mapping and remote sensing”, University of Padova; “Hydromorphology”, University of Pavia.

He also taught:

2009-2011: “Geomorphological analysis and Remote Sensing”, University of Padova

2005-2010: “Fluvial Geomorphology”, University of Padova

2004-2010: “Geographic Information Systems and Remote Sensing”, University of Padova

2006-2008: “Geomorphological mapping”, University of Padova

2000-2001 and 2003-2004: “Geomorphology”, University of Padova and University of Venice

#### Student supervision:

6 PhD theses:

Alberto Cisotto, University of Venice, 2003-2005 (co-supervisor);

Laura Cibien, University of Padova, 2007-2009 (the PhD was stopped at the end of the 2<sup>nd</sup> year);

Luca Ziliani, University of Padova, 2008-2011;

Bruno Golfieri, University of Padova, 2011-2013;

Margherita Righini, University of Padova, 2014-2016;

Andrea Brenna, University of Padova, 2015-2018.

29 MSc theses (“laurea specialistica” or “laurea magistrale” in Italy);

25 BSc theses (undergraduate – 3-yrs degree).