

# Curriculum Vitae

## INFORMAZIONI PERSONALI

**Nome** CHRISTIAN  
**Cognome** CONOSCENTI  
**Recapiti** Dipartimento di Scienze della Terra e del Mare, via Archirafi 22, 90123 Palermo, +39 091 23864670  
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## FORMAZIONE TITOLI

30/03/2017: **National Scientific Qualification (ASN)** for the role of **Full Professor of Physical Geography and Geomorphology** by the Italian Ministry of Education, University and Research (MIUR). <https://asn16.cineca.it/pubblico/miur/esito-abilitato/04%252FA3/1/1>

19/12/2013: **National Scientific Qualification (ASN)** for the role of **Associate Professor of Physical Geography and Geomorphology** by the Italian Ministry of Education, University and Research (MIUR). <https://abilitazione.cineca.it/ministero.php/public/esitoAbilitati/settore/04%252FA3/fascia/2>

27/01/2006: **Doctor of Philosophy (PhD) in Geology**, Department of Geology and Geodesy, University of Palermo. Dissertation title: "Assessment of water erosion at watershed scale: a case study of the San Leonardo River watershed (Central-western Sicily)". Tutor: Prof. V. Agnesi

31/10/2000: **Master of Science in Geology** (110/110 cum laude), Department of Geology and Geodesy, University of Palermo. Dissertation title: "Geomorphological setting of Mt. Pellegrino". Tutor: Prof. T. Macaluso

## ATTIVITA' DIDATTICA

### University courses held at the University of Palermo

- 2018 – 2019 "GIS modeling of geo-hydrological risk", MS in Geological Science and Technology
- 2017 – 2019 "Environmental geology and GIS analysis", MS in Analysis and environmental management
- 2016 – 2018 "Water erosion", MS in Geological Science and Technology
- 2016 – 2018 "Geomorphometry", MS in Geological Science and Technology
- 2016 – 2017 "Environmental geology", MS in Analysis and environmental management
- 2009 – 2016 "Geomorphology", MS in Forestry and environmental sciences
- 2008 – 2010 "Geomorphology and Environmental geology", MS in Forestry and environmental sciences
- 2010 – 2016 "Environmental geology and Geomorphology", MS in Environmental requalification and Naturalistic engineering
- 2007 – 2008 "Geomorphology", BS in Forestry and environmental sciences

2006 -- 2008 "Applied GIS", MS in Geology for the environment and territory

### **Tutor of PhD thesis at University of Palermo**

PhD student: Marilena Ciaccio; dissertation thesis: "GIS analysis and statistical modelling for the evaluation of landslide susceptibility at the watershed scale: a case study of the watershed of the Marvello Creek"

### **University courses held at other universities**

2010, 2011 and 2013: "Evaluación del Riesgo ante la Erosión del Suelo", Master in Gestión para la Reducción del Riesgo, Universidad "San Carlos" de Guatemala

2013: "Herramientas GIS para evaluación de Modelos de Pérdida de Suelo por Erosión", Master in Evaluación de Peligrosidades Naturales, Universidad de El Salvador

2011: "Modelos de Pérdida de Suelo por Erosión", Curso de especialización in Evaluación de Peligrosidades Naturales, Universidad de El Salvador

2010: "Evaluación de la susceptibilidad a deslizamientos", Master Centroamericano en Gestión y Reducción de Riesgos Naturales, Universidad Nacional Autónoma de Nicaragua, Managua

### **RICERCHE FINANZIATE**

2013 – 2016: Scientific responsible for the University of Palermo of the project "Fluvial processes and sediment dynamics of slope channel systems: Impacts of socio economic-and climate change on river system characteristics and related services – FLUMEN" funded by the EU (call identifier: FP7-PEOPLE-2012-IRSES)

2010 – 2011: Scientific responsible for the University of Palermo of the project VIGONI 2009 "Soil erosion assessment in the Mediterranean: An integrative approach combining field studies, remote sensing methods and process based modelling in the Imera Catchment of Northern Sicily, Italy", funded by the German-Italian University Center

### **ASSOCIAZIONI SCIENTIFICHE**

AIGeo (Associazione Italiana di Geografia Fisica e Geomorfologia)

### **PUBBLICAZIONE**

#### **ISI-listed papers**

Garosi, Y., Sheklabadi, M., Conoscenti, C., Pourghasemi, H.R., Van Oost, K., 2019. Assessing the performance of GIS-based machine learning models with different accuracy measures for determining susceptibility to gully erosion. *Sci. Total Environ.* 664, 1117–1132. <https://doi.org/10.1016/j.scitotenv.2019.02.093>

Rahmati, O., Kornejady, A., Samadi, M., Deo, R.C., Conoscenti, C., Lombardo, L., Dayal, K., Taghizadeh-Mehrjardi, R., Pourghasemi, H.R., Kumar, S., Bui, D.T., 2019. PMT: New analytical framework for automated evaluation of geo-environmental modelling approaches. *Sci. Total Environ.* 664, 296–311. <https://doi.org/10.1016/j.scitotenv.2019.02.017>

Arabameri, A., Rezaei, K., Cerdà, A., Conoscenti, C., Kalantari, Z., 2019. A comparison of statistical methods and multi-

criteria decision making to map flood hazard susceptibility in Northern Iran. *Sci. Total Environ.* 660, 443–458. <https://doi.org/10.1016/j.scitotenv.2019.01.021>

Vargas-Cuervo, G., Rotigliano, E., Conoscenti, C., 2019. Prediction of debris-avalanches and -flows triggered by a tropical storm by using a stochastic approach: An application to the events occurred in Mocoa (Colombia) on 1 April 2017. *Geomorphology* 339, 31–43. <https://doi.org/https://doi.org/10.1016/j.geomorph.2019.04.023>

Arabameri, A., Pradhan, B., Rezaei, K., Conoscenti, C., 2019. Gully erosion susceptibility mapping using GIS-based multi-criteria decision analysis techniques. *Catena* 180, 282–297. <https://doi.org/10.1016/j.catena.2019.04.032>

Rotigliano, E., Martinello, C., Hernández, M.A., Agnesi, V., Conoscenti, C., 2019. Predicting the landslides triggered by the 2009 96E/Ida tropical storms in the Ilopango caldera area (El Salvador, CA): optimizing MARS-based model building and validation strategies. *Environ. Earth Sci.* 78, 210. <https://doi.org/10.1007/s12665-019-8214-3>

Amiri, M.A., Conoscenti, C., Mesgari, M.S., 2018. Improving the accuracy of rainfall prediction using a regionalization approach and neural networks. *Kuwait J. Sci.* 45, 66–75.

Brandolini, P., Pepe, G., Capolongo, D., Cappadonia, C., Cevasco, A., Conoscenti, C., Marsico, A., Vergari, F., Del Monte, M., 2018. Hillslope degradation in representative Italian areas: Just soil erosion risk or opportunity for development? *L. Degrad. Dev.* 29, 3050–3068. <https://doi.org/10.1002/ldr.2999>

Garosi, Y., Sheklabadi, M., Porghasemi, H.R., Besalatpour, A.A., Conoscenti, C., Van Oost, K., 2018. Comparison of differences in resolution and sources of controlling factors for gully erosion susceptibility mapping. *Geoderma* 330, 65–78. <https://doi.org/10.1016/j.geoderma.2018.05.027>

Conoscenti, C., Agnesi, V., Cama, M., Caraballo-Arias, N.A., Rotigliano, E., 2018. Assessment of Gully Erosion Susceptibility Using Multivariate Adaptive Regression Splines and Accounting for Terrain Connectivity. *L. Degrad. Dev.* 29, 724–736. <https://doi.org/10.1002/ldr.2772>

Rotigliano, E., Martinello, C., Agnesi, V., Conoscenti, C., 2018. Evaluation of debris flow susceptibility in El Salvador (CA): a comparison between Multivariate Adaptive Regression Splines (MARS) and Binary Logistic Regression (BLR). *Hungarian Geogr. Bull.* 67, 361–373. <https://doi.org/10.15201/hungeobull.67.4.5>

Arab Amiri, M., Mesgari, M.S., Conoscenti, C., 2017. Detection of homogeneous precipitation regions at seasonal and annual time scales, northwest Iran. *J. Water Clim. Chang.* 8, 701–714. <https://doi.org/10.2166/wcc.2017.088>

Arab Amiri, M., Conoscenti, C., 2017. Landslide susceptibility mapping using precipitation data, Mazandaran Province, north of Iran. *Nat. Hazards* 89, 255–273. <https://doi.org/10.1007/s11069-017-2962-8>

Cama, M., Lombardo, L., Conoscenti, C., Rotigliano, E., 2017. Improving transferability strategies for debris flow susceptibility assessment: Application to the Saponara and Itala catchments (Messina, Italy). *Geomorphology* 288, 52–65. <https://doi.org/10.1016/j.geomorph.2017.03.025>

Caraballo-Arias, N.A., Conoscenti, C., Di Stefano, C., Ferro, V., Gómez-Gutiérrez, A., 2016. Morphometric and hydraulic geometry assessment of a gully in SW Spain. *Geomorphology* 274, 143–151. <https://doi.org/10.1016/j.geomorph.2016.09.021>

Gómez-Gutiérrez, Á., Schnabel, S., Conoscenti, C., Caraballo-Arias, N.A., Ferro, V., Di Stefano, C., Sanjosé, J.J., Angileri, S.E., De Matías, J., Berenguer-Sempere, F., 2016. Elaboración de modelos 3D de diferentes morfologías y escalas utilizando técnicas Structure-from-Motion y fotografías terrestres. *Cuaternario y Geomorfol.* 30, 23–35.

Angileri, S.E., Conoscenti, C., Hochschild, V., Märker, M., Rotigliano, E., Agnesi, V., 2016. Water erosion susceptibility mapping by applying stochastic gradient treeboost to the imera Meridionale River basin (Sicily, Italy). *Geomorphology* 262, 61–76. <https://doi.org/10.1016/j.geomorph.2016.03.018>

Conoscenti, C., Rotigliano, E., Cama, M., Caraballo-Arias, N.A., Lombardo, L., Agnesi, V., 2016. Exploring the effect of absence selection on landslide susceptibility models: A case study in Sicily, Italy. *Geomorphology* 261, 222–235. <https://doi.org/10.1016/j.geomorph.2016.03.006>

Cama, M., Conoscenti, C., Lombardo, L., Rotigliano, E., 2016. Exploring relationships between grid cell size and accuracy for debris-flow susceptibility models: a test in the Giampilieri catchment (Sicily, Italy). *Environ. Earth Sci.* 75. <https://doi.org/10.1007/s12665-015-5047-6>

Cama, M., Lombardo, L., Conoscenti, C., Agnesi, V., Rotigliano, E., 2015. Predicting storm-triggered debris flow events: application to the 2009 Ionian Peloritani disaster (Sicily, Italy). *Nat. Hazards Earth Syst. Sci.* 15, 1785–1806. <https://doi.org/10.5194/nhess-15-1785-2015>

Lombardo, L., Cama, M., Conoscenti, C., Märker, M., Rotigliano, E., 2015. Binary logistic regression versus stochastic gradient boosted decision trees in assessing landslide susceptibility for multiple-occurring landslide events: application to the 2009 storm event in Messina (Sicily, southern Italy). *Nat. Hazards* 79, 1621–1648. <https://doi.org/10.1007/s11069-015-1915-3>

Gómez-Gutiérrez, Á., Conoscenti, C., Angileri, S.E., Rotigliano, E., Schnabel, S., 2015. Using topographical attributes to evaluate gully erosion proneness (susceptibility) in two mediterranean basins: advantages and limitations. *Nat. Hazards* 79, 291–314. <https://doi.org/10.1007/s11069-015-1703-0>

Caraballo-Arias, N.A., Conoscenti, C., Di Stefano, C., Ferro, V., 2015. A new empirical model for estimating calanchi Erosion in Sicily, Italy. *Geomorphology* 231, 292–300. <https://doi.org/10.1016/j.geomorph.2014.12.017>

Del Monte, M., Vergari, F., Brandolini, P., Capolongo, D., Cevasco, A., Ciccacci, S., Conoscenti, C., Fredi, P., Melelli, L., Rotigliano, E., others, 2015. Multi-method Evaluation of Denudation Rates in Small Mediterranean Catchments, in: Lollino, G., Manconi, A., Clague, J., Shan, W., Chiarle, M. (Eds.), *Engineering Geology for Society and Territory-Volume 1*. Springer International Publishing, Cham, pp. 563–567. <https://doi.org/10.1007/978-3-319-09300-0>

Agnesi, V., Rotigliano, E., Tamaro, U., Cappadonia, C., Conoscenti, C., Obrizzo, F., Di Maggio, C., Luzio, D., Pingue, F., 2015. GPS monitoring of the Scopello (Sicily, Italy) DSGSD phenomenon: relationships between surficial and deep-seated morphodynamics, in: Lollino, G., Giordan, D., Crosta, G.B., Corominas, J., Azzam, R., Wasowski, J., Sciarra, N. (Eds.), *Engineering Geology for Society and Territory-Volume 2*. Springer International Publishing, Cham, pp. 1321–1325. <https://doi.org/10.1007/978-3-319-09057-3>

Conoscenti, C., Ciaccio, M., Caraballo-Arias, N.A., Gómez-Gutiérrez, Á., Rotigliano, E., Agnesi, V., 2015. Assessment of susceptibility to earth-flow landslide using logistic regression and multivariate adaptive regression splines: A case of the Belice River basin (western Sicily, Italy). *Geomorphology* 242, 49–64. <https://doi.org/10.1016/j.geomorph.2014.09.020>

Caraballo-Arias, N.A., Conoscenti, C., Di Stefano, C., Ferro, V., 2014. Testing GIS-morphometric analysis of some Sicilian badlands. *CATENA* 113, 370–376. <https://doi.org/10.1016/j.catena.2013.08.021>

Conoscenti, C., Angileri, S., Cappadonia, C., Rotigliano, E., Agnesi, V., Märker, M., 2014. Gully erosion susceptibility assessment by means of GIS-based logistic regression: a case of Sicily (Italy). *Geomorphology* 204, 399–411. <https://doi.org/10.1016/j.geomorph.2013.08.021>

Costanzo, D., Chacón, J., Conoscenti, C., Irigaray, C., Rotigliano, E., 2014. Forward logistic regression for earth-flow landslide susceptibility assessment in the Platani river basin (southern Sicily, Italy). *Landslides* 11, 639–653. <https://doi.org/10.1007/s10346-013-0415-3>

Conoscenti, C., Agnesi, V., Angileri, S., Cappadonia, C., Rotigliano, E., Merker, M., 2013. A GIS-based approach for gully erosion susceptibility modelling: a test in Sicily, Italy. *Environ. Earth Sci.* 70, 1179–1195. <https://doi.org/10.1007/s12665-012-2205-y>

Rotigliano, E., Cappadonia, C., Conoscenti, C., Costanzo, D., Agnesi, V., 2012. Slope units-based flow susceptibility model: using validation tests to select controlling factors. *Nat. Hazards* 61, 143–153. <https://doi.org/10.1007/s11069-011-9846-0>

Pulice, I., Cappadonia, C., Scarciglia, F., Robustelli, G., Conoscenti, C., De Rose, R., Rotigliano, E., Agnesi, V., 2012. Geomorphological, chemical and physical study of “calanchi” landforms in NW Sicily (southern Italy). *Geomorphology* 153–154, 219–231. <https://doi.org/10.1016/j.geomorph.2012.02.026>

Costanzo, D., Cappadonia, C., Conoscenti, C., Rotigliano, E., 2012. Exporting a Google Earth™aided earth-flow susceptibility model: a test in central Sicily. *Nat. Hazards* 61, 103–114. <https://doi.org/10.1007/s11069-011-9870-0>

Rotigliano, E., Agnesi, V., Cappadonia, C., Conoscenti, C., 2011. The role of the diagnostic areas in the assessment of landslide susceptibility models: a test in the sicilian chain. *Nat. Hazards* 58, 981–999. <https://doi.org/10.1007/s11069-010-9708-1>

Conoscenti, C., Di Maggio, C., Rotigliano, E., 2008. GIS analysis to assess landslide susceptibility in a fluvial basin of NW Sicily (Italy). *Geomorphology* 94, 325–339. <https://doi.org/10.1016/j.geomorph.2006.10.039>

Conoscenti, C., Di Maggio, C., Rotigliano, E., 2008. Soil erosion susceptibility assessment and validation using a geostatistical multivariate approach: a test in Southern Sicily. *Nat. Hazards* 46, 287–305. <https://doi.org/10.1007/s11069-007-9188-0>

Agnesi, V., Camarda, M., Conoscenti, C., Di Maggio, C., Serena Diliberto, I., Madonia, P., Rotigliano, E., 2005. A multidisciplinary approach to the evaluation of the mechanism that triggered the Cerda landslide (Sicily, Italy). *Geomorphology* 65, 101–116. <https://doi.org/10.1016/j.geomorph.2004.08.003>

## ATTIVITA' SCIENTIFICHE

Christian Conoscenti is Associate Professor of Physical Geography and Geomorphology at the Department of Earth and Marine Sciences of the University of Palermo. His research activities are mainly focused on GIS and statistical analysis of soil erosion and landslide processes. He is member of the Academic Board of the PhD in Earth and Marine Sciences of the University of Palermo. He obtained a MSc degree in Geological Sciences, in 2000, and a PhD in Geology, in 2006, at the University of Palermo. He obtained from the Italian Ministry of Education, University and Research (MIUR), the National Scientific Qualification (ASN) in the field of Physical Geography and Geomorphology for the role of Associate Professor, in 2103, and for the role of Full Professor, in 2017. He is author of 36 ISI papers related to his main research interests. Christian Conoscenti is Associate Professor of Physical Geography and Geomorphology at the Department of Earth and Marine Sciences of the University of Palermo. His research activities are mainly focused on GIS and statistical analysis of soil erosion and landslide processes. He is member of the Academic Board of the PhD in Earth and Marine Sciences of the University of Palermo. He obtained a MSc degree in Geological Sciences, in 2000, and a PhD in Geology, in 2006, at the University of Palermo. He obtained from the Italian Ministry of Education, University and Research (MIUR), the National Scientific Qualification (ASN) in the field of Physical Geography and Geomorphology for the role of Associate Professor, in 2103, and for the role of Full Professor, in 2017. He is author of 36 ISI papers related to his main research interests.

## AMBITI DI RICERCA

Geomorphology, Water erosion, Landslides, Natural hazards, GIS, statistical modelling of slope processes

