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FREEWARE SOFTWARE FOR EARTH SCIENCE AND ENGINEERING SCIENTIFIC COMMUNITY
(*developed by Lorenzo Borselli*)

SSAP2010 (***Slope Stability Analysis Program***) **(rel 5.2-2023) - Analysis of slope stability in natural and artificial complex conditions. Soil and rock masses.**

KUERY - Global Erodibility Database Query (rel. 1.5) : based on Quantile Regression applied (Borselli et al. 2009) on global erodibility databases (Torri et al. al 1997) and climatic Koppen classification (Salvador Sanchis et al. , 2008) , Borselli et al. (2012)

DECOLOG_6.0 ***DECONVOLUTION OF MIXTURES' COMPONENTS INSIDE PARTICLE SIZE DISTRIBUTIONS***

PESERA-L - (rel. 1.3.1) Sediment Yield due to shallow mass movement in a watershed. An

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RESEARCHER'S IDENTIFIERS (and H factor)

SOURCE	*IDENTIFIER*	*LINK (public access)*	*H Factor (*excluding self citations)*	Last Update
SCOPUS	7004298826	https://www.scopus.com/authid/detail.uri?authorId=7004298826	24*	13/03/2023
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Google Academic	0PbU0dcAAAAJ	http://scholar.google.es/citations?hl=en&user=0PbU0dcAAAAJ	31	13/03/2023
Research Gate	Lorenzo Borselli	https://www.researchgate.net/profile/Lorenzo_Borselli	30*	13/03/2023
Web Of Science	A-7430-2012	https://www.webofscience.com/wos/author/record/A-7430-2012	22*	13/03/2023

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Dr. Lorenzo Borselli , Ph.D.
Italian Citizen, Born in Florence , ITALY.
Earth and Soil Scientist, Engineering Geologist. Specialist in soil and rocks mechanics and hydrology.
Degree in geology 1989 at the university of Florence Italy. In the 1998 received Ph.D In Soil Science at the university of Florence, ITALY.
Since 1997 until 2011 worked as Researcher at National Research Council (CNR). Since 2003 worked as Researcher at the Research Institute for Geo-Hydrological Protection (CNR-IRPI). In the period 2009-2011, He has been head of research unit of CNR-IRPI, in Florence,Italy.
Referee of several International scientific journals: ***Hydrological Processes, Catena, Earth Surface Processes and Landforms, Geomorphology, Journal of Environmental Management, Soil Use and Management, European Journal of Soil Science, Earth Science review, Journal of Hydrology.***
Member of Editorial Board, as Associate Editor, of **Journal of Soil and Water Conservation**. (march 2010 - July 2016). Member of Editorial Board, as Associate Editor, of **Revista Mexicana de Ciencias Geologicas**. (2013-2016)
Has been Italian delegate COST ACTION 623 "Soil Erosion and Global change" and of COST 634 " On and Off-site Environmental Impact of Runoff and Erosion".funded bya EU.

addendum to the PESERA model.

VOLCANOFIT 2.0.1
Modeling a Stratovolcano Edifice with 3D surface (volcanoids)

EUROSEM 2010 (European soil Erosion Model - 2010).
The European Soil Erosion Model (EUROSEM) is a dynamic distributed model, able to simulate sediment transport, erosion and deposition by rill and interill processes in single storms for both individual fields and small catchments.

YOUTUBE WEB CHANNEL ON DEVELOPED FREEWARE SOFTWARE

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Collaborations in software development:

AND MORE FREEWARE SOFTWARE

LAIMA
Laboratorio de Análisis de Imágenes y Modelado Analógico
COLLABORATING WITH WWW.LAIMA-UASLP.ORG

He collaborated in several international research projects (funded by EU) related to Soil erosion process and modeling , soil conservation, desertification process and measures for mitigation (MWISED, TERON, RECONDES. DESIRE, LAMPRE etc.). Since 2002 collaborated with Mexican universities (UNAM,UASLP) to projects in assessment of hydrological components for volcanic hazard. Author or Co-author of 60 papers on international scientific journals, and book chapters. His current research interests are: Geomathematics, software development and modeling for stability of slopes, soil and rock mechanics, shallow landslide modeling ,surface hydrology, statistical and mathematical advanced techniques applied to soil erosion and surface hydrology, modeling soil erosion by water, soil erosion by tillage and land levelling. Author of various software distributed freeware at scientific community: “Slope Stability Analysis Program (SSAP)” (www.ssap.eu), and DECOLOG (www.decolog.org), KUERY (www.lorenzo-borselli.eu/kuery).
Since July 2019 is external consultant of SRK Consulting (https://www.srk.com/en) and since april 2019 Member of College of Expert Reviewers of European Science Foundation (ESF).
He is working, since july 2011, as Full Professor of Geotechnics and Engineering Geology at : Instituto de Geologia / Facultad de Ingenieria, Universitad Autonoma de San Luis Potosì (UASLP) , San Luis Potosí, S.L.P. - MEXICO.
Since 2018 is Visiting Professor of Geotechnics and Engineering Geology at: Department of Earth Science(DST), University of Florence, ITALY.
Since May 2021 is Associate Researcher at Research Institute for Geo-Hydrological Protection (CNR-IRPI), National Research Council (CNR), Perugia , Italy.

Curriculum Vitae et Studiorum

- *(1989)* ***Degree in Geology****, University of Florence. Dissertation in experimental geomorphology: "Experimental study on rill erosion evolution".*
- *(1989) Received the* ***Qualification for professional practice in Engineering Geology****, Florence September 1989, University of Florence.*
- *(1990)* ***"CONNAUGHT" fellowship****, Dept. of Geography, University of Toronto, Canada.*
- *(1991-1992)* - ***Research Fellowship*** *at the National Research Council - Centro per lo Studio della Genesi, Classificazione e Cartografia del Suolo (CNR- CSGCCS), in Florence Italy - experimental activity in the field of soil conservation and soil hydrology modelling, rainfall simulations.*
- *(1992-1994)* - ***Research Fellowship*** *at the Agronomic Institute for Overseas (IAO), Florence Italy - soil Physics and hydrological process modeling, rainfall simulations. In the same period participated, as expert in rainfall simulations and surface hydrology, at two of the experimental field work activities of the international research project STD2-285-I "IMPROVING PRODUCTIVITY OF CRUSTING SOILS AND DEPLETED SANDY SOIL IN ZIMBABWE", founded by UE, Coordinator Prof. Giovanni A. Ferrari of the Univ. of Florence.*
- *(1994-1997)* - ***PhD Student*** *at the Dept. of Soil Science, University of Florence, directed by Prof. Guido Sanesi, and dr. Dino Torri of the Institute for Soil Genesis and Ecology(CNR-IGES) in Florence. Theme: Surface hydrology and modelling of soil roughness evolution and influences in water infiltration and runoff production, rainfall simulation.*
- *(May 1996 to July 96), worked at the “Laboratory for experimental Geomorphology“ Catholic University of Leuven (belgium), directed by Prof. Jean Poesen, using rainfall simulators for surface Hydrology modelling and studies of soil roughness evolution and influences in water infiltration and runoff production.*
- *(1998) - received a* ***PhD in soil Science*** *from the University of Florence with the dissertation"* ***Dinamica della rugosità superficiale del suolo e sua influenza nei processi di infiltrazione: analisi sperimentale e modellizzazione*** *" (Soil surface roughness dynamics an its influence on the infiltration processes: experimental analysis and modeling)(in italian)*
- *(1998-2001),* ***contract researcher*** *at the Institute for Soil Genesis and Ecology of the NATIONAL RESEARCH COUNCIL (CNR-IGES), in Florence,*

directed by the Professor Gabriele Ristori.

- ***(august 2001-september 2003), Permanent position as Researcher at NATIONAL RESEARCH COUNCIL (CNR) in the Institute for Soil Genesis and Ecology (CNR-IGES) of Florence.***
- ***(since september 2003), Researcher at the CNR-IRPI - Research Institute for Geo-Hydrogeological Protection of the NATIONAL RESEARCH COUNCIL (CNR), in Florence.***
- ***(october 2009-june 2011). Deputy Director of Florence Branch of CNR-IRPI - Research Institute for Geo-Hydrogeological Protection, of the NATIONAL RESEARCH COUNCIL (CNR). (http://WWW.IRPI.CNR.IT)***
- ***(since July 2011) . Full Professor of Geotechnics and Applied Geology at:*** Institute of Geology/Faculty of Engineering, Universidad Autonoma de San Luis Potosì (UASLP) , San Luis Potosí, S.L.P. - MEXICO
- ***(since september 2011). Academic Member titular of Doctorate School for Engneering and Science or Materials (DICIM)*** Universitad Autonoma de San Luis Potosì (UASLP) ,San Luis Potosí, S.L.P. - MEXICO
- ***(since september 2011). Academic Member titular of Pograduate School in Applied Geology.*** Universidad Autonoma de San Luis Potosì (UASLP) ,San Luis Potosí, S.L.P. - MEXICO
- (*since 29 nov. 2012*) Membership to National Resarch System (Mexico) (***Sistema Nacional de Investigacion with level 2 (SNI II)***
- ***(November 2013-january2018) Head of Academic Group On Geomaterials and Geosystems modeling,*** Faculty of Engineering, Universidad Autonoma de San Luis Potosì (UASLP) , San Luis Potosí, S.L.P. - MEXICO
- ***(since July 2014 -) . Full-time Tenured Professor of Geotechnics and Engineering Geology at:*** Institute of Geology/Faculty of Engineering, Universidad Autonoma de San Luis Potosì (UASLP) , San Luis Potosí, S.L.P. - MEXICO
- ***(January 2018 -). Visiting Professor of Geotechnics and Engineering Geology at: Department of Earth Science(DST), University of Florence, ITALY***
- ***(April 2019-). Member of College of Expert Reviewers of European Science Foundation (ESF).***
- ***(May 2021 -). Associate Researcher at Research Institute for Geo-Hydrologcal Protection (CNR-IRPI), National Research Council (CNR), Perugia , Italy***

Participation in Scientific Research Programs:

- (1990-1993), STD2-285-I, "**IMPROVING PRODUCTIVITY OF CRUSTING SOILS AND DEPLETED SANDY SOIL IN ZIMBABWE**". Funded by EU;
- (1996-2000), FAIR3-CT96-1478, "**Tillage Erosion : Current State, Future Trends and Prevention (TERON)** ". Funded by EU.
- (1997-2000), ENV4-CT96-0359, "**Inventory of alpine-relevant parameters for an alpine monitoring system using remote sensing data (ALPMON)** ". Participation as consultant of the Italian Contractor of the Project. Funded by EU;
- (1998-2001), ENV4-CT97-0687, "**Modelling Within Storm Erosion Dynamics (MWISED)** ". Funded by EU;
- (1998-2003), **COST Action 623**, **"Soil Erosion and Global Change"** . Funded by European Commission ;
- (2004-2007) **COST Action 634**: ***"On- and Off-site Environmental Impacts of Runoff and Erosion".***Funded by European Commission ;
- (2004-2007) "**Conditions for Restoration and Mitigation of Desertified Areas Using Vegetation**" (RECONDES); European Commission GOCE-CT-2003-505361
- (2007-2012) ***"Desertification Mitigation and Remediation of Land - a global approach for local solutions*** " (DESIRE). European Integrated Project GOCE 0370462.
- (October 2008 - June 2011) **Italian study site coordinator and Scientific Responsible of CNR resarch group whithin DESIRE project**.
- (2010-2013) **FIRESENSE** (**Fire Detection and Management through a Multi-Sensor Network for the Protection of Cultural Heritage Areas from the Risk of Fire and Extreme Weather Conditions**, FP7-ENV-2009-1–244088-FIRESENSE . http://www.firesense.eu.
- (18 september 2013 -2015) **Associate Scientist** to "**LAMPRE project - LAndslide Modelling and tools for vulnerability assessment Preparedness and REcovery management**." (LAMPRE project) - *European Union seventh framework program. Grant No. 312384.*
- **(2013-2017) Modelling of Hydrologic Processes, Hydrophobicity and infiltration Dynamic for Flooding and Lahars hazard assessment** . CONACYT Grant: Proyecto Ciencia Basica CB-2012/184060.
- (2018-) **Software Innovation for the study of Geomaterials, Earth Science and Civil Engineering**. CONACYT Grant: Proyecto Ciencia Basica CB-2016/286764.

Main Research Interests and Skills

- **Slope stability computation advanced algorithms and search engines for critical slip surfaces.**
- **Soil and Rocks Mechanics.**
- **Geotechnical and Geomathematics software development .**
- **Slope stabilization strategies and technologies.**
- **Geomaterials an Geosystems modelling for geo-hazard assessment.**
- **Global optimization algorithms and their application in earth sciences, hydrology and soil/rock Mechanics.**
- **Soil Erosion and soil Hydrology modelling.**
- **Surface flow connectivity modeling by GIS for engineering geomorphology and geo-hazard assessment.**
- **Soil conservation technologies.**
- **Fuzzy mathematical techniques applied to manage parametric uncertainty in erosion and hydrology modeling, slope stability and slope failure processes.**
- **Soil erosion By Tillage: modeling and advanced measurement techniques.**

Specialized Techniques (algorithms and software coding)

- **Slope stability software, algorithm design and development.**
- **Geotechnical software development.**
- **Deconvolution of mixtures of statistical distributions.**
- **Monte Carlo numerical techniques and simulations .**
- **Differential evolution (DE) algorithms for global optimization and earth science and engineering.**
- **Soil hydraulic parameters by inversion algorithms from rainfall simulations data and field/lab infiltrometers.**
- **Soil surface roughness statistical properties and analysis with segmentation algorithms.**
- **Modelling uncertainty distributions using fuzzy variables.**

CURRENT DIDACTIC ACTIVITIES:

- **UNDERGRADUATE COURSE: GEOTECHNICS (*at UASLP since 2011, 80 hour ccourse each semester*) (INFO) (in spanish)**
- **POSTGRADUATE COURSE : SLOPE INSTABILITY PROCESSES (*at UASLP since 2011, 64 hours course each semester*)**

- **SSAP SOFTWARE AND SLOPE STABILITY COURSES IN ITALY (*since 2010*) (INFO) (in italian)**

Directed Theses (B.sc., M.Sc., Ph.D.)

4 B.Sc.(USASLP)
7 M.Sc.(UASLP)
3 Ph.D.(1 UNIFI, 2 UASLP)

Earth science and Engineering Freeware Software, algorithms and coding

- **Slope stability software - SSAP2010 (*Slope Stability Analysis Program*) (rel. 5.2 - 2023) - analysis of slope stability in natural and artificial complex conditions. (see also** *BORSELLI L. 2013. Advanced 2D Slope stability Analysis by LEM by SSAP software: a full freeware tool for teaching and scientific community. IN "ICL Landslide Teaching Tools". Kyoji Sassa, Bin He, Mauri McSaveney, Osamu Nagai (EDS.). International Consortium on Landslides (ICL). PP. 428. ISBN: 978-4-9903382-2-0*)

- **KUERY - Global Erodibility Database Query (rel. 1.5) : based on Quantile Regression applied (Borselli et al. 2009) on global erodibility databases (Torri et al. al 1997) and climatic Koppen classification (Salvador Sanchis et al. , 2008) , and Borselli et al. 2012,. *A robust algorithm for estimating soil erodibility in different climates*. CATENA 97:85-94 DOI: 10.1016/j.catena.2012.05.012**

- **PESERA-L - (rel. 1.3.1). Sediment Yield due to shallow mass movements in a watershed. An addendum to the PESERA model.**

- **DECOLOG 6.0 - *DECONVOLUTION OF MIXTURES' COMPONENTS INSIDE PARTICLE SIZE DISTRIBUTIONS***

- **EUROSEM 2010 (European soil Erosion Model - 2010). The European Soil Erosion Model (EUROSEM) is a dynamic distributed model, able to simulate sediment transport, erosion and deposition by rill and interill processes in single storms for both individual fields and small catchments.**

- **VOLCANOFIT 2.0.1 Modeling a Stratovolcano Edifice with 3D surface (volcanoid).** (see:*BORSELLI L., CAPRA L., SAROCCHI D., De La CRUZ-REYNA S. 2011. Flank collapse scenarios at Volcán de Colima, Mexico: a relative instability analysis. Journal of Volcanology and Geothermal Research. 208:51–65. DOI: 10.1016/j.jvolgeores.2011.08.004*)

List of Publications

(last updated 13-03-2023)

Papers on JRC Journals (International Peer Reviewed)

1. Di TRAGLIA F., CALVARI S., BORSELLI L., CASSANEGO L., GIUDICEPIETRO F., MACEDONIO G., NOLESINI T., CASAGLIN. (2023). Assessing flank instability of Stromboli volcano (Italy) by reappraising the 30 December 2002 tsunamigenic landslides. *Landslides*. (In press). https://doi.org/10.1007/s10346-023-02043-5
2. CASABELLA-GONZALEZ M. J., BORSELLI L., GARCIA-MEZA J.V. (2023). Improved MPSIAC model for soil erosion rate assessment in semiarid zones. *Journal of Arid Environments*. 212: 10494. https://doi.org/10.1016/j.jaridenv.2023.104946
3. INNOCENTI, A., PAZZI, V., BORSELLI, L., NOCENTINI, M., LOMBARDI, L., GIGLI, G., & FANTI, R. (2023). Reconstruction of the evolution phases of a landslide by using multi-layer back-analysis methods. *Landslides*, 20, 189–207. https://doi.org/10.1007/s10346-022-01971-y
4. Di TRAGLIA, F., BORSELLI, L., NOLESINI, T., & CASAGLI, N. (2023). Crater-rim collapse at Stromboli volcano: understanding the mechanisms leading from the failure of hot rocks to the development of glowing avalanches. *Natural Hazards*, 115:2051–2068. https://doi.org/10.1007/s11069-022-05626-y
5. RODRÍGUEZ-SEDANO L.A. , SAROCCHI D., CABALLERO L. , BORSELLI L. , ORTIZ-RODRÍGUEZ A.J. , CERCA-RUIZ M.F. , MORENO-CHÁVEZ G. , FRANCO RAMOS O. (2022). Post-eruptive lahars related to the 1913 eruption in La Lumbre Ravine, Volcán de Colima, Mexico: The influence of ravine morphometry on flow dynamics. Journal of Volcanology and Geothermal Research. January 2022, Volume 421:107423. https://dx.doi.org/10.1016/j.jvolgeores.2021.107423
6. VANMAERCKE M., PANAGOS P., VANWALLEGHEM T., HAYAS A. , FOERSTER S., BORRELLI P., ROSSI M., TORRI D., CASALI J. , BORSELLI L., VIGIAK O., MAERKER M., HAREGEWEYN N., DE GEETER S., ZGOBICKI W. , BIELDERS C., CERDA A., CONOSCENTI C. , DE FIGUEIREDO T., EVANS B., GOLOSOV V., IONITA I., KARYDAS C., KERTESZ A., KRASA J., LE BOUTEILLER C., RADOANE M., RISTIC R., ROUSSEVA S., STANKOVIANSKY M., STOLTE J. , STOLZ C., BARTLEY R., WILKINSON S. , JARIHANI B., POESEN J. (2021). Measuring, modelling and managing gully erosion at large scales: A state of the art. *Earth-Science Reviews*. Volume 218, 103637. https://doi.org/10.1016/j.earscirev.2021.103637
7. CASABELLA-GONZALEZ M. J., BORSELLI L., GARCIA-MEZA J.V. (2021) .Soil Horizon erodibility assessment in an area of Mexico susceptible to gully erosion. *Journal of South American Earth Sciences*. November 2021, Volume 111:103497. https://dx.doi.org/10.1016/j.jsames.2021.103497
8. CASABELLA-GONZALEZ M. J., ASTELLO-GARCIA M.G., BORSELLI L., GARCIA-MEZA J.V. (2021). Glomalin-related soil protein analysis and its role in erodibility in a semiarid zone in San Luis Potosi, Mexico. *CATENA* . August 2021, Volume 203:105351. https://doi.org/10.1016/j.catena.2021.105351
9. MORENO-CHÁVEZ G., CASTILLO-RIVERA F., MONTENEGRO-RÍOS J.A., BORSELLI L. , RODRÍGUEZ-SEDANO L.A, SAROCCHI D. (2020). Fourier Shape Analysis, FSA: Freeware for quantitative study of particle morphology. *Journal of Volcanology and Geothermal Research*. Volume 404, 15 October 2020, 107008. https://doi.org/10.1016/j.jvolgeores.2020.107008
10. ORTÍZ-RODRÍGUEZ A.J, CAPRA L., MUÑOZ-ROBLES C., COVIELLO V., BORSELLI L. (2020). Connectivity and hydrological efficiency dynamics at active volcanoes, Mexico. *Science of The Total Environment*. Volume 736, 20 September 2020, 139649. https://doi.org/10.1016/j.scitotenv.2020.139649
11. ORTIZ-RODRIGUEZ A.J., MUNOZ-ROBLEZ C., BORSELLI L. 2019. Changes in connectivity and hydrological efficiency following wildland fires in Sierra Madre Oriental, Mexico. *Science of Total Environment* . 655:112-128. https://doi.org/10.1016/j.scitotenv.2018.11.236
12. CHAVEZ, G. M., RIVERA, F. C., SAROCCHI, D., BORSELLI, L., & RODRIGUEZ-SEDANO, L. A. (2018). FabricS: A user-friendly, complete and robust software for particle shape-fabric analysis. Computers & Geosciences, 115, 20-30. https://doi.org/10.1016/j.cageo.2018.02.005
13. CAPRA, L., COVIELLO, V., BORSELLI, L., MARQUEZ-RAMIREZ, V.-H., and ARAMBULA-MENDOZA, R.(2018). Hydrological control of large hurricane-induced lahars: evidence from rainfall-runoff modeling, seismic and video monitoring, Nat. Hazards Earth Syst. Sci., 18, 781-794, https://doi.org/10.5194/nhess-18-781-2018

14. PEREZ-GONZALEZ, M.L., CAPRA PEDOL, L., DAVILA-HERNANDEZ, N., BORSELLI, L., SOLIS-VALDEZ, S., ORTIZ-RORDIRGUIEZ, A.J., (2017), Spatio-temporal land-use changes in the Colima-Villa de Álvarez metropolitan area, and their relationship to floodings: Revista Mexicana de Ciencias Geológicas . v. 34, núm. 2, 2017, p. 78-90. http://dx.doi.org/10.22201/cgeo.20072902e.2017.2.435
15. ORTIZ-RODRIGUEZ A.J. , BORSELLI L, . SAROCCHI D.. 2017. Flow connectivity in active volcanic areas: Use of index of connectivity in the assessment of lateral flow contribution to main streams. Catena. 157:90-111. http://dx.doi.org/10.1016/j.catena.2017.05.009
16. RODRIGUES-SEDANO, L. A., SAROCCHI, D., SULPIZIO, R., BORSELLI, L., CAMPOS, G., & CHAVEZ, G. M. 2016. Influence of particle density on flow behavior and deposit architecture of concentrated pyroclastic density currents over a break in slope: Insights from laboratory experiments. Journal of Volcanology and Geothermal Research, 328, 178-186. http://dx.doi.org/10.1016/j.jvolgeores.2016.10.017
17. VIGIAK O., BEVERLY C., ROBERTS A. , THAYALAKUMARAN T., DICKSON M., McINNES J., BORSELLI L. 2016. Detecting changes in sediment sources in drought periods: The Latrobe River case study. Environmental Modelling & Software. Vol. 85:42-55. http://dx.doi.org/10.1016/j.envsoft.2016.08.011
18. CHAVEZ, G. M., SAROCCHI, D., SANTANA, E. A., & BORSELLI, L. 2015. Optical granulometric analysis of sedimentary deposits by color segmentation-based software: OPTGRAN-CS. Computers & Geosciences, 85, 248-257. http://dx.doi.org/10.1016/j.cageo.2015.09.007
19. CABALLERO, L., D. SAROCCHI, E. SOTO, and L. BORSELLI .2014, Rheological changes induced by clast fragmentation in debris flows, Journal of Geophysical Research , Earth Surf., 119(9): 1800–1817, http://dx.doi.org/10.1002/2013JF002942
20. BRUNETTI M.T., GUZZETTI F., CARDINALI M., FIORUCCI F. , SANTANGELO M., MANCINELLI P., KOMATSU G. , BORSELLI L. 2014. Analysis of a new geomorphological inventory of landslides in Valles Marineris, Mars, Earth and Planetary Science Letters, Vol. 405: 156-168, ISSN 0012-821X, http://dx.doi.org/10.1016/j.epsl.2014.08.025. (http://www.sciencedirect.com/science/article/pii/S0012821X14005317)
21. MORENO CHÁVEZ G., SAROCCHI D., ARCESANTANA E., BORSELLI L., RODRÍGUEZ-SEDANO L.A. 2014. Using Kinect to analyze pebble to block-sized clasts in sedimentology. Computers & Geosciences. Vol. 72:18–32. http://dx.doi.org/10.1016/j.cageo.2014.07.008
22. SANTI E., TARANTINO C. , AMICI V., BACARO G. BLONDA P. , BORSELLI L. , ROSSI M. , TOZZI S. , TORRI D. 2014, Fine-Scale Spatial Distribution Of Biomass Using Satellite Images. Journal of Ecology and the Natural Environment, Vol.62, Pag.75-86, DOI: 10.5897/JENE2013.0416.
23. MONTENEGRO RIOS A., SAROCCHI D., NAHAMAD-MOLINARI Y., BORSELLI L. 2013. Form From Projected Shadow (FFPS): An algorithm for 3D shape analysis of sedimentary particles. Computers & Geosciences. 60:98–108. DOI:10.1016/j.cageo.2013.07.008.
24. TORRI D., SANTI E., MARIGNANI M. , ROSSI M., BORSELLI L. , MACCHERINI S. 2013. The recurring cycles of biancana badlands: Erosion, vegetation and human impact. CATENA. 106:22-30. DOI:10.1016/j.catena.2012.07.001.
25. BORSELLI l. , TORRI D. , POESEN J., IAQUINTA P. 2012. A robust algorithm for estimating soil erodibility in different climates. CATENA 97:85-94 DOI: 10.1016/j.catena.2012.05.012
26. CABALLERO l. , SAROCCHI D., BORSELLI l. , CARDENAS a.l., 2012. Particle interaction inside debris flow: evidence through experimental data and quantitative clast shape analysis. Journal of Volcanology and Geothermal Research. 231-232:12-23. DOI: 10.1016/j.jvolgeores.2012.04.007
27. TORRI D., POESEN J., BORSELLI L., BRYAN R., ROSSI M. . 2012. Spatial variation of bed roughness in eroding rills and gullies. CATENA.90:76–86. doi:10.1016/j.catena.2011.10.004
28. CIAMPALINI R., BILLI P., FERRARI G., BORSELLI L., FOLLAIN S. 2012. Soil erosion induced by land use changes as determined by plough marks and field evidence in the Aksum area (Ethiopia). Agriculture, Ecosystems and Environment 146:197– 208. doi:10.1016/j.agee.2011.11.006
29. VIGIAK O., BORSELLI L., NEWHAM L.T.H. , McINNES J. , ROBERTS A.M. 2012. Comparison of conceptual landscape metrics to define hillslope-scale sediment delivery ratio. *Geomorphology*. 138: 74–88. DOI:10.1016/j.geomorph.2011.08.026
30. BORSELLI L., CAPRA L., SAROCCHI D., De La CRUZ-REYNA S. 2011. Flank collapse scenarios at Volcán de Colima, Mexico: a relative instability analysis. *Journal of Volcanology and Geothermal Research*. 208:51–65. DOI: 10.1016/j.jvolgeores.2011.08.004
31. SMETS T., BORSELLI L., POESEN J., TORRI D.. 2011 Evaluation of the EUROSEM model for predicting the effects of erosion-control blankets on runoff and interrill soil erosion by water. *Geotextiles and Geomembranes* 29: 285-297. doi:10.1016/j.geotexmem.2011.01.012
32. BORSELLI L., TORRI D. 2010. Soil roughness, slope and surface storage relationship for impervious areas. *Journal of Hydrology.* 393:389–400.doi:10.1016/j.jhydrol.2010.09.002
33. NORINI G. , L. CAPRA, L. BORSELLI, F. R. ZUNIGA, L. SOLARI AND D. SAROCCHI. 2010. Large scale landslides triggered by Quaternary tectonics in the Acambay graben, Mexico. *Earth Surface Processess and Landforms*. 35:1445-1455. doi: 10.1002/esp.1987
34. CAPRA, L., BORSELLI, L., VARLEY, N., GAVILANES-RUIZ, J.C, NORINI, G., SAROCCHI, D., CABALLERO, L., CORTES, A. . (2010). Rainfall-triggered lahars at Volcán de Colima, Mexico: Surface hydro-repellency as initiation process *Journal of Volcanology and Geothermal Research* . Volume 189(1-2):105-117 doi:10.1016/j.jvolgeores.2009.10.014

35. SALVADOR SANCHIS M. P. , TORRI D. , BORSELLI L. , BRYAN R. , POESEN J. ,3 YAÑEZ M. S. CREMER C. (2009). Estimating parameters of the channel width–flow discharge relation using rill and gully channel junction data. *Earth Surf. Process. Landforms*, Vol. 34, 2023–2030 .DOI: 10.1002/esp.1887
36. BORSELLI L., P. CASSI, D. TORRI. 2008. Prolegomena to Sediment and flows connectivity in the landscape: a GIS and field numerical assessment. *CATENA* (Elsevier):75(3): 268-277. doi:10.1016/j.catena.2008.07.006
37. DESCHEEMAEKER K. J. POESEN, L. BORSELLI, J. NYSSEN, D. RAES, M. HAILE, B. MUYS, J. DECKERS. (2008) . Runoff curve numbers for steep hillslopes with natural vegetation in semi-arid tropical highlands, northern Ethiopia. *Hydrological processes* . 22(20): 4097-4105 DOI: 10.1002/hyp.7011..
38. CIAMPALINI R., P. BILLI, G. FERRARI and L. BORSELLI. 2008 Plough marks as a tool to assess soil erosion rates: A case study in Axum (Ethiopia). *CATENA*, 75 (1), p.18-27
39. SALVADOR SANCHIS M.P. , TORRI D., BORSELLI L., AND POESEN J., 2008. Climate Effects on Soil Erodibility. *Earth Surface Processes and Landforms*, Volume 33(7), p.1082 - 1097
40. BORSELLI L.,TORRI D. (2007) .A model for reducing soil erosion by tillage. *Journal of soil and water Conservation*.vol. 62(6): 158A
41. TORRI D., POESEN J., BORSELLI L., KNAPEN A., 2006. Channel width – flow discharge relationships for rills and gullies. *Geomorphology*, 76, 273-279.
42. CABALLERO L., MACIAS J.L., GARCIA-PALOMO A., SAUCEDEO G.R., BORSELLI L. , SAROCCHI D., SANCHEZ J.M. 2006. The september 8-9, 1998 rain triggered flood events at Motozintla, Chiapas, Mexico. *Natural Hazards*.39(1):103-126..
43. DE ALBA S., L. BORSELLI, D. TORRI , S. PELLEGRINI , P. BAZZOFFI(2006). "ASSESSMENT OF TILLAGE EROSION IN TUSCANY (ITALY)." , *Soil & Tillage Research* 85 123–142.
44. SAROCCHI,L. BORSELLI, J.L. MACIAS. (2005), Construction de perfiles granulometricos de depositos piroclasticos por metodos opticos. *Revista Mexicana de Ciencias Geologicas*.22:371-382
45. CAPRA L. , J. LUGO-HUBP , L. BORSELLI. (2003). "Mass Movements In Tropical Volcanic Terrains: The Case Of Teziutlán (México)". *Engineering Geology*, vol. 69 (3-4):359-379
46. TORRI L., L. BORSELLI (2003). Equation For High Rate Gully Erosion , *CATENA*, 50:449-467.
47. TORRI D. , L. BORSELLI (2002) "Clod Movement And Tillage Tool Characteristics For Modelling Tillage Erosion". *Journal of Water and Soil Conservation*.57(1):24-28
48. BORSELLI L. , D. TORRI, J. POESEN, P. SALVADOR SANCHIS (2001). Effect Of Water Quality On Infiltration, Runoff And Interrill Erosion Processes During Simulated Rainfall. *Earth Surface Processes And Landforms* 26:339-342
49. BORSELLI L., D. TORRI. (2001) "Measurements Of Soil Traslocation By Tillage Using A Non Invasive Electromangnetic Method". *Journal of Water and Soil Conservation* 56(2):106-111
50. SALLES C., POESEN J., BORELLI L., (1999). Measurement Of Simulated Drop Size Distribution With An Optical Spectro Pluviometer: Sample Size Consideration". *Earth Surface Processes And Landforms*. 24:545-556.
51. BORSELLI L: . (1999) Segmentation Of Soil Roughness Profiles. *Earth Surface Processes And Landforms*. 24:71-90.
52. TORRI D:, J. POESEN & L. BORSELLI. (1997). Predictability And Uncertainty Of The Soil Erodibility Factor Using A Global Dataset. *CATENA* (Elsevier), 31:1-22
53. KOVALIK P., M. BORGHETTI,L. BORSELLI, F.MAGNANI, G. SANESI, R. TOGNETTI (1997). Diurnal water relations of beech(fagus silvatica l.) Trees in the mountains of italy. *Agricultural and Forest meteorology*. 84:11-23.
54. BORSELLI L., R. BIANCALANI, S. CARNICELLI , C. GIORDANI , G.A. FERRARI (1996). Effect Of Gypsum On Seedling Emergence In A Kaolinitic Crusting Soil. *Soil Technology* Vol. 9 , pp 71-81.
55. BORSELLI L., S. CARNICELLI , G.A. FERRARI , M. PAGLIAI & G.LUCAMANTE (1996). Effect Of Gypsum On Hydrological, Mechanical And Porosity Properties Of A Kaolinitic Crusting Soil. *Soil Technology* Vol. 9 , pp 39-54.

Book Chapters, or International Conferences proceedings (in english - Peer Reviewed)

1. BORSELLI L. , BARTOLINI D., CORRADEGHINI P., LENZI A. and PETRI P. (2020).Flow Connectivity Patterns in Complex Anthropized Landscape Application in Cinque Terre Terraced Site. In Massimiliano Alvioli, Ivan Marchesini, Laura Melelli, Peter Guth, eds. "Proceedings of the GEOMORPHOMETRY 2020 Conference". (pp.55-58). CNR EDIZIONI. ISBN: 978-88-8080-282-2. https://doi.org/10.30437/GEOMORPHOMETRY2020_15
2. De la CRUZ-REYNA, S., MENDOZA-ROSAS, A. T., BORSELLI, L., & SAROCCHI, D. (2019). Volcanic Hazard Estimations for Volcán de Colima. In Volcán de Colima (pp. 267-289). Springer, Berlin, Heidelberg. ISBN: 978-3-642-25910-4. https://doi.org/10.1007/978-3-642-25911-1_6
3. CAPRA, L., GAVILANES-RUIZ, J. C., VARLEY, N., & BORSELLI L. (2019). Origin, Behaviour and Hazard of Rain-Triggered Lahars at Volcán de Colima. In Volcán de Colima (pp. 141-157). Springer, Berlin, Heidelberg. ISBN: 978-3-642-25910-4. https://doi.org/10.1007/978-3-642-25911-1_2
4. HOOKE, J., SANDERCOCK, P., CAMMERAAT, L. H., LESSCHEN, J. P., BORSELLI, L., TORRI, D., & BOIX-FAYOS, C. (2017). Mechanisms of Degradation and Identification of Connectivity and Erosion Hotspots. In Combating Desertification and Land Degradation (pp. 13-37). Springer, Cham. ISBN 978-3-319-44449-9. https://doi.org/10.1007/978-3-319-44451-2_2
5. BORSELLI L. 2013. Advanced 2D Slope stability Analysis by LEM by SSAP software: a full freeware tool for teaching and scientific community. IN "ICL Landslide Teaching Tools". Kyoji Sassa, Bin He, Mauri McSaveney, Osamu Nagai (EDS.). International Consortium on Landslides (ICL). PP. 428. ISBN: 978-4-9903382-2-0.

6. ROSSI M. , S. PERUCCACCI, M.T. BRUNETTI, I. MARCHESINI, S. LUCIANI, F. ARDIZZONE, V. BALDUCCI, C. BIANCHI, M. CARDINALI, F. FIORUCCI, A.C. MONDINI, P. REICHENBACH, P. SALVATI,M. SANTANGELO, D. BARTOLINI, S.L. GARIANO, M. PALLADINO, G. VESSIA, A. VIERO, L. ANTRONICO, L. BORSELLI, A.M. DEGANUTTI, G. IOVINE, F. LUINO, M. PARISE, M. POLEMIO , F. GUZZETTI, S. LUCIANI, F. FIORUCCI, A.C. MONDINI , M. SANTANGELO, G. TONELLI, 2012. SANF: National warning system for rainfall-induced landslides in Italy. In Landslides and Engineered Slopes: Protecting Society through Improved Understanding – Eberhardt et al. (eds). Taylor & Francis Group, London,pagea pp. 1895-1899. ISBN 978-0-415-62123-6.
7. TORRI D., L. BORSELLI. 2011. Water erosion . In "Handbook of Soil Sciences: Resource Management and Environmental Impacts, Second Edition", Pan Ming HuangYuncong LiMalcolm E. Sumner (editors). Chapter 22.: 1-19. CRC PressTaylor & Francis , Boca raton FL.
8. BORSELLI L., CASSI P.,SALVADORSANCHIS P. (2009). Soil Erodibility Assessment for Applications at Watershed Scale.In “Manual of Methods for Soil and Land Evaluation”, *Edoardo A.C. Costantini ed.,* Science Publisher Inc., 600 pages. ISBN 978-1-57808-571-2/November 2009
9. BARTOLINI D. BORSELLI L. (2009). Evaluation of the Hydrologic Soil Group (HSG) with the Procedure SCS Curve Number. In “Manual of Methods for Soil and Land Evaluation”, *Edoardo A.C. Costantini ed.,* Science Publisher Inc., 600 pages. ISBN 978-1-57808-571-2/November 2009
10. VIGIAK O., NEWHAM LTH, WHITFORD J., MELLAND A., BORSELLI L. 2009. Comparison of landscape approaches to define spatial patterns of hillslope-scale sediment delivery ratio. In Anderssen, R.S., R.D. Braddock and L.T.H. Newham (eds) 18th World IMACS Congress and MODSIM09 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand and International Association for Mathematics and Computers in Simulation, July 2009, pp. 4064-4070. ISBN: 978-0-9758400-7-8. http://www.mssanz.org.au/modsim09/I14/vigiak.pdf
11. BORSELLI L. 2007. International conference: “Soil and Hillslope Management using scenario analysis and runoff-erosion models: a critical evaluation of current techniques” - Florence may 7^{th}-9^{th} 2007 FIELD TRIP GUIDE. (L. Borselli editor) .CNR-IRPI . http://www.fi.cnr.it/irpi/cost634/field_trip_guide_cost634_florence2007.pdf
12. BORSELLI L., E. BUSONI, C. CALZOLARI, A CHIARUCCI, S. MACCHERINI, M. MARIGNANI, D. TORRI. (2007). Land Degradation And Vegetation: A Catchment View. In Hooke J. Yeroyanni Maria (eds), 2007. Conditions for restoration and mitigation of desertified areas using vegetation(RECONDES)- review of literature and present knowledge. *European Commission. Luxembourg: office for Official Pubblication of the European Commission*. ISBN 92-79-03072-8. 298 pp.
13. TORRI D., L. BORSELL Iet al. . (2006) . “SOIL EROSION IN ITALY”. In “SOIL EROSION IN EUROPE” (J. Boardman and J. Poesen – editors John Willey & Sons Ltd, West Sussex. England pp.243-261
14. BORSELLI ET al. . (2006) . “SOIL EROSION BY LAND LEVELLING”. In “SOIL EROSIONE IN EUROPE” (J. Boardman and J. Poesen– editors). John Willey & Sons Ltd, West Sussex. England pp. 643-658
15. BORSELLI L., S. PELLEGRINI, D. TORRI, P. BAZZOFFI. (2002).: “TILLAGE EROSION AND LAND LEVELLING: EVIDENCE IN TUSCANY (ITALY)”. Proceedings Of The 3th Internation Congress Of The European Society For Soil Conservation, 28 March2000, Valencia Spain. “ Man and soil at third millenium”. J. L. Rubio, R.P.C. Morgan, S. Asins, V. Andreu. Eds. Geoforma Editiones. ES.Vol. II:1341-1350.
16. TORRI D., L. BORSELLI, C. CALZOLARI , M.S. YANEZ, M. P. SALVADOR SANCHIS. (2002). “ LAND USE, SOIL QUALITY AND SOIL FUNCTIONS: EFFECT OF EROSION”, Key note of the sessions. Proceedings Of The 3th Internation Congress Of The European Society For Soil Conservation, 28 March2000, Valencia Spain. “ Man and soil at third millenium”. J. L. Rubio, R.P.C. Morgan, S. Asins, V. Andreu. Eds. Geoforma Editiones. ES. Vol. I:131-148.
17. BORSELLI L.. , D. TORRI, (2000). “INTEGRATE FRAMEWORK FOR SOIL EROSION CRITICAL STATE ASSESSMENT”. PROCEEDINGS OF THE 7TH ICCTA - INTERNATIONAL CONGRESS FOR COMPUTER TECHNOLOGY IN AGRICOLTURE: “Computer technology in agricoltural management and risk prevention” , Florence 15TH-18TH november 1998. Supplemento agli atti dei Georgofili 2000. Accademia dei Georgofili pp. 90-97.
18. TORRI D., L. BORSELLI. (2000). “WATER EROSION”. in "MANUAL OF SOIL SCIENCE" M.E. Sumner ed. . CRC Pubblications, New York. pp G171-G194
19. BORSELLI L.. , S.CARNICELLI, G.A. FERRARI, U. GALLIGANI (1998). “Chapeter 17 - THE IMPORTANCE OF SOIL INFILRATION DYNAMICS AND DATA UNCERTAINTY: FIELD STUDIES ON SOILS IN ZIMBABWE”. In “ Sustainable Management in Tropical Catchments” edito da D. HARPER & T. BROWN . John Willey & Sons. - England. pp.279-295.
20. BORSELLI L., D. MAGALDI, M. TALLINI, (1998). "ASSESSMENT OF HILLSLOPE INSTABILITY HAZARD BASED ON FUZZY MATHEMATICS METHODS". PROCEEDINGS OF THE 8TH CONGRESS OF THE INTERNATIONAL ASSOCIATION OF ENGINEERING GEOLOGY - IAEG. Vancouver, British Columbia, Canada, 21.25 sept, 1998. Balkema , editions.
21. TORRI D., L. BORSELLI (1991)- "OWERLAND FLOW AND SOIL EROSION: SOME PROCESSES AN THEIR INTERACTIONS ". CATENA SUPPLEMENT N. 19, "EROSION, TRANSPORT, DEPOSITION PROCESSES", pp 129-137- CREMLINGEN - GERMANY.

Book Chapters or conferences proceedings (in italian)

1. UZZIELLI M., BONI D., BORSELLI L., PRETI F. 2022. Analisi comparativa di stabilizzazione di pendii con soluzioni convenzionali, naturali e combinate mediante modellazione all'equilibrio limite. Atti

dell'Incontro Annuale dei Ricercatori di Geotecnica – IARG 2022 ©2022 Edizioni AGI, Roma, ISBN 9788897517108 . https://iarg2022.it/wp-content/uploads/2022/09/Atti_IARG_2022.zip
2. SERGEANT D., BORSELLI L. (2021). Studio di una fondazione superficiale su pendio in roccia con il metodo dell'equilibrio limite. X Incontro Annuale dei Giovani Ingegneri Geotecnici. Atti del Convegno Pisa, 3-4 Settembre 2021– F. Ceccato, M. Rosone e S. Stacul Eds.Associazione Geotecnica Italiana, Roma, Italia, PP.193-196. ISBN 978-88-97517-16-0. http://geotecnica.unipi.it/wp-content/uploads/2021/08/Atti_X_IAGIG_Pisa_2021.pdf
3. BORSELLI L.2006. .Valutazione della erodibilità delsuolo in applicazioni a scala di bacino. In "Metodi di valutazione del suolo e delle terre" (Edoardo Costantini –Editor). Edizioni Cantagalli, Siena. pp-197-222 (in italian)
4. BARTOLINI D., L. BORSELLI, 2006. Valutazione del gruppo idrologico del suolo (HSG)secondo la procedura SCS Curve Number. In "Metodi di valutazione del suolo e delle terre" (Edoardo Costantini – Editor). Edizioni Cantagalli, Siena. pp-223-236 (in italian)
5. BAZZOFFI P., L. BORSELLI, S. PELLEGRINI, D. TORRI 2006. Indici di rugosità superficiele del suolo a fini modellistici. In "Metodi di valutazione del suolo e delle terre" (Edoardo Costantini – Editor). Edizioni Cantagalli, Siena. pp-165-195
6. SAPIO F., L. BORSELLI, P. PETRI, E. ZINI (2000) . "ALPMON: IL LAND COVER NELLA VALUTAZIONE DEL RISCHIO DI EROSIONE IN AMBIENTE ALPINO. Atti 3° congresso naz. ASITA, napoli dic. 1999.
7. BORSELLI L., D. MAGALDI, M. TALLINI. (1999) "Elaborazione di carte dalla pericolosità da instabilità di versante con approccio fuzzy". Atti dei convegni dei Lincei 154: "il rischio idrogeologico e la difesa del suolo" Roma 1-2 ottobre 1998. ACCADEMIA NAZIONALE DEI LINCEI pp 307-310.
8. BUSONI E., L.BORSELLI & C. CALZOLARI (1995) . "CARATTERISTICHE FISICHE ED IDROLOGICHE DEL SUOLO: LORO DERIVABILITA' DALLA CARTOGRAFIA PEDOLOGICA ED APPLICABILITA' IN MODELLI DISTRIBUITI DI BILANCIO IDROLOGICO DI BACINO". Gruppo Nazionale per la difesa dalle catastrofi idrogeologiche - C.N.R. - Linea 1 . pp.137
9. BORSELLI L (1995) , "PARAMETRI PEDOLOGICI ED IDROLOGICI COME VARIABILI FUZZY PER LA MODELLISTICA A LIVELLO DI BACINO". In E. BUSONI, L.BORSELLI & C. CALZOLARI (editors) . CARATTERISTICHE FISICHE ED IDROLOGICHE DEL SUOLO: LORO DERIVABILITA' DALLA CARTOGRAFIA PEDOLOGICA ED APPLICABILITA' IN MODELLI DISTRIBUITI DI BILANCIO IDROLOGICO DI BACINO". Gruppo Nazionale per la difesa dalle catastrofi idrogeologiche - C.N.R. - Linea 1 . pp 77-79
10. BORSELLI L. (1995) , " IL SOIL CONSERVATION SERVICE CURVE NUMBER METHOD". In E. BUSONI, L.BORSELLI & C. CALZOLARI(editors) . "CARATTERISTICHE FISICHE ED IDROLOGICHE DEL SUOLO: LORO DERIVABILITA' DALLA CARTOGRAFIA PEDOLOGICA ED APPLICABILITA' IN MODELLI DISTRIBUITI DI BILANCIO IDROLOGICO DI BACINO". Gruppo Nazionale per la difesa dalle catastrofi idrogeologiche - C.N.R. - Linea 1 . pp 57-76
11. BORSELLI L. (1993) - "VERIFICHE DI STABILITA` DEI PENDII IN CASI DI COMPLESSITA` STRATIGRAFICA: MODELLIZZAZIONE E APPLICAZIONI IN CODICI DI CALCOLO AUTOMATICO". ATTI DEL TERZO WORKSHOP "INFORMATICA E SCIENZE DELLA TERRA". patrocinato da GIAST- CNR - Sarnano (MC) ottobre 1991 - De Frede - Napoli . pp 15-31
12. BORSELLI L. (1991)- "FUZZY CURVE NUMBER PER LA PREVISIONE DEGLI EVENTI IDROLOGICI ESTREMI". Gruppo Nazionale per la difesa dalle Catastrofi Idrogeologiche - Rapporto 1991 della attività svolta. - Linea di ricerca 1 - unità operativa 1.2- Patrocinato dal CONSIGLIO NAZIONALE DELLE RICERCHE. VOLUME UNICO pp 69-86.
13. BORSELLI L., E. BUSONI, D.TORRI (1989)- " APPLICABILITA` DEL SCS CURVE NUMBER METHOD: IL FATTORE LAMBDA PER LA STIMA DEL DEFLUSSO SUPERFICIALE". Gruppo Nazionale per la difesa dalle Catastrofi Idrogeologiche - Rapporto 1989 della attività svolta - Linea di ricerca 1- unità operativa 1.2 - Patrocinato dal CONSIGLIO NAZIONALE DELLE RICERCHE . VOLUME UNICO pp 43-55

Technical Reports, Manuals, Methods, Invited Seminars Presentations, Conferences Presentations and Papers in no JRC Journals.

1. BORSELLI L. (2023). "SSAP 5.2 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 5.2". Researchgate. DOI: https://dx.doi.org/10.13140/RG.2.2.19931.03361
2. BORSELLI L. (2022). "SSAP 5.1 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 5.1". Researchgate. DOI: https://dx.doi.org/10.13140/RG.2.2.31522.91841
3. BORSELLI L. (2021). Models for the stability of volcanic edifices and application of software SSAP - Invited seminar - NHCE- Bangalore (India) - 29-07-21. Researchgate. DOI: https://dx.doi.org/10.13140/RG.2.2.36335.71846
4. BORSELLI L. , CASTELLI G. , SECCHI G., NSABIYUMVA J. M. V. , PRETI F. (2021). Optimal design of terraced landscapes: sensitivity analysis of geomechanical and bio-mechanical parameters. Researchgate. DOI: https://dx.doi.org/10.13140/RG.2.2.22221.72161
5. BORSELLI L:(2021). Slope Stability Analysis in Agroforestry Landscapes . Researchgate. DOI: https://dx.doi.org/10.13140/RG.2.2.15995.44324
6. BORSELLI L. (2020). "SSAP 5.0 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 5.0". Researchgate. DOI: https://doi.org/10.13140/RG.2.2.12436.73604
7. BORSELLI L, PETRI P. (2020). Muri a secco: verifiche di stabilità con software SSAP 5.0 e criterio GHB(GSI) per le strutture in roccia. Researchgate. https://doi.org/10.13140/RG.2.2.21048.90886/1

8. BORSELLI, L. (2020). Reti in aderenza : progettazione alternativa in SSAP 5.0 per verifiche stabilità globali (LEM). Researchgate. https://doi.org/10.13140/RG.2.2.22444.82569
9. BORSELLI, L. (2019).Validazione del codice di calcolo SSAP. Researchgate. https://doi.org/10.13140/RG.2.2.18565.09444
10. BORSELLI, L. (2019). NAGA Landslide Back-Analysis - version 0.2 - 09-01-2019. Researchgate. https://doi.org/10.13140/RG.2.2.35412.35201
11. BORSELLI L. , GRECO. L, PETRI P.- 2018. SSAP2010 "Un passo Oltre". Software di uso libero (freeware) per le verifiche di stabilità all'equilibrio limite (LEM) nei pendii naturali e artificiali, con metodi rigorosi e avanzati. Il GEOLOGO, No. 106, Nov. 2018. (in italian)
12. BORSELLI L. (2018). "SSAP 4.9.8 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.9.8 *DOI: https://doi.org/10.13140/RG.2.2.17674.31683*
13. BORSELLI L. (2018). "SSAP 4.9.6 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.9.6 . *DOI: https://doi.org/*10.13140/RG.2.2.28883.68643
14. BORSELLI L. (2017). "SSAP 4.8.8 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.8.8 . *DOI: https://doi.org/10.13140/RG.2.2.32971.28969*
15. BORSELLI L. (2017). "SSAP 4.8.6 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.8.6 . *DOI: https://doi.org/*10.13140/RG.2.2.21727.76969
16. BORSELLI L. (2017). "SSAP 4.8.4 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.8.4 . *DOI: https://doi.org/*10.13140/RG.2.2.11281.84326
17. BORSELLI L. (2016). "SSAP 4.7.2 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.7.2 . *DOI: http://dx.doi.org/10.13140/RG.2.1.3851.1766*
18. BORSELLI L. (2016). "SSAP 4.7.0 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.7.0 . *DOI: http://dx.doi.org/10.13140/RG.2.1.3222.2484*
19. BORSELLI L. (2015). "SSAP 4.5.2 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.5.2 http://www.ssap.eu/manualessap2010.pdf (last accessed 9 january 2015)
20. VIGIAK, O., MALAGO, A., BONRAUI, F., OBREJA, F., POESEN, J., & BORSELLI, L. (2014). Including hillslope sediment connectivity in SWAT–the Siret Basin case study http://connecteur.info/wp-content/uploads/2014/08/VIGIAK_COST_WagAug2014.pdf
21. BORSELLI L. (2014). "SSAP 4.5.0 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.5.0 http://www.ssap.eu/manualessap2010.pdf (last accessed 4 November 2014)
22. BORSELLI L. (2014). "SSAP 4.3.2 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.3.2 http://www.ssap.eu/manualessap2010.pdf (last accessed 29 july 2014)
23. BORSELLI L. (2013). "SSAP 4.2.2 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.2.2 http://www.ssap.eu/manualessap2010.pdf (last accessed 29 october 2013)
24. BORSELLI L. (2012). "SSAP 4.2.0 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.2.0 http://www.ssap.eu/manualessap2010.pdf (last accessed 03 March 2013)
25. BORSELLI L. (2012). "SSAP 4.1.0 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.1.0 http://www.ssap.eu/manualessap2010.pdf (last accessed 12 July 2012)
26. BORSELLI L. (2012). "SSAP 4.0.8 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.0.8 http://www.ssap2005.it/manualessap2010.pdf (last accessed 7 february. 2012)
27. BORSELLI L. SALVADOR SANCHISM.P., BATOLINI D., CASSI P., LOLLINO P.. (2011).PESERA-L model: an addendum to the PESERA model for sediment yield due to shallow mass movement in a watersheed. CNR-IRPI , Italy Report .n.82. scientific report deliverable 5.2.1 DESIRE. PROJECT. Pp.28
28. BORSELLI L. (2011). "SSAP 4.0.6 - SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 4.0.6 http://www.ssap2005.it/manualessap2010.pdf (last accessed 13 july. 2011).
29. KIRKB Y., IRVINE B., POESEN. J., BORSELLI L. REED M. (2010). Improving process descriptions integrated within the PESERA model in order to be able to evaluate effects of potential prevention and remediation measures. Universidy of Leeds, UK. Report .n.75. scientific report deliverable 5.2.1 DESIRE. PROJECT. Pp.21
30. TORRI D., BORSELLI L., SALVADOR SANCHIS M.P. et al. (2010). Pericolosità di erosione idrica alle varie scale spaziali - Capitolo 4. In "POR calabria 2000-2006 lotto progettuale 2 . pericolosità legata ai fenomeni di intensa erosione idrica areale e lineare" , Oreste terranova Ed. Consiglio nazionale delle ricerche. Istituto di ricerca per la protezione idrogeologica. Pp. 610
31. BORSELLI L. (2009). DECOLOG -DECONVOLUTION OF MIXTURES OF LOGNORMAL COMPONENTS INSIDE PARTICLE SIZE DISTRIBUTION. (last accessed

13 july 2011). http://www.decolog.org/decolog_manual.pdf. DOI: *http://dx.doi.org/10.13140/RG.2.1.5122.7929*
32. BORSELLI L., SALVADOR SANCHIS M.P. D. BARTOLINI, TORRI D., (2010). Activity report 3th year- desire project.- study siste n. 3. Pp. 45
33. BORSELLI L., CASSI P., P. SALVADOR SANCHIS, F.UNGARO. (2007). STUDIO DELLA DINAMICA DELLE AREE SORGENTI PRIMARIE DI SEDIMENTO NELL'AREA PILOTA DEL BACINO DI BILANCINO: PROGETTO (BABI) –Relazione Attività di Progetto . CNR – IRPI, Consiglio Nazionale delle Ricerche, Istituto di Ricerca per la Protezione Idrogeologica, Firenze. Autorità di Bacino del Fiume Arno-Firenze. pp.110. (in italian). http://www.adbarno.it/rep/babi/Relazione_Progetto_BABI.zip , https://dx.doi.org/10.13140/RG.2.2.11291.59684
34. BORSELLI L. (2007). "SSAP 3.0.1 – SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 3.0.1 http://www.ssap2005.it (PUBBLICAZIONE IN FORMATO ELETTRONICO).
35. BORSELLI L., P. MAGAZZINI, CASSI P., P. SALVADOR SANCHIS.(2004). STUDIO DELLA DINAMICA DELLE AREE SORGENTI PRIMARIE DI SEDIMENTO NELL'AREA PILOTA DEL BACINO DI BILANCINO: PROGETTO (BABI) –CARTA PEDOLOGICA ALLA SCALA 1:25.000 DEL BACINO DI BILANCINO. CNR – IRPI, Consiglio Nazionale delle Ricerche, Istituto di Ricerca per la Protezione Idrogeologica, Firenze
36. BORSELLI L., CASSI P., P. SALVADOR SANCHIS, F.UNGARO. (2004). STUDIO DELLA DINAMICA DELLE AREE SORGENTI PRIMARIE DI SEDIMENTO NELL'AREA PILOTA DEL BACINO DI BILANCINO: PROGETTO (BABI) –Rapporto preliminare . CNR – IRPI, Consiglio Nazionale delle Ricerche, Istituto di Ricerca per la Protezione Idrogeologica, Firenze. pp.104
37. BORSELLI L., U. GALLIGANI,, D. MAGALDI. "SOILTRAN: UN CODICE DI CALCOLO PER LA TRADUZIONE DEL NOME DEI SUOLI SECONDO LA LEGENDA EC-FAO(1985) NEL NOME DELLA LEGENDA FAO UNESCO (1990). UNIVERSITà DEGLI STUDI DELL'AQUILA, DISAT 2002/1
38. MARCHETTI R., L. BORSELLI, D. TORRI (2001). "CARATTERIZZAZIONE, MISURA E DESCRIZIONE MATEMATICA DEL RUSCELLAMENTO IN PIANURA" Riv. Di Irr. E Dren. 48(2):4-19
39. BORSELLI L. (1999). "SSAP 2.7 – SLOPE STABILITY ANALYSIS PROGRAM". MANUALE DI RIFERIMENTO. DEL CODICE SSAP Versione 2.7. CNR-IGES, FIRENZE. http://www.area.fi.cnr.it/iges/ssap/ssap27.htm. (PUBBLICAZIONE IN FORMATO ELETTRONICO). (discontinued 2001)
40. TORRI D., BAZZZOFFI P., BORSELLI L., (1998). "I PARAMETRI FISICI CORRELATI ALL'EROSIONE DEL SUOLO". IN "LA NORMALIZZAZIONE DELI METODI DI ANALISI FISICA DEI SUOLI". I Georgofili, Quaderni, III: 59-93.
41. MAGALDI D., L. BORSELLI, A. FARRONI, M. TALLINI (1997) . "DETERMINAZIONE DELLA PERICOLOSITA` DEI VERSANTI CON APPLICAZIONE DI MATEMATICA FUZZY". DISAT . Università dell'Acquila. . 97/1.
42. ZANCHI C.,GIORDANI C., PINI G., BIANCALANI R., BORSELLI L. (1995). "PERDITE DI SUOLO E DI NUTRIENTI IN FUNZIONE DI DIVERSE DOSI DI CONCIMAZIONE (ESTENSIVA E INTENSIVA) SU TERRENI A DIVERSA TESSITURA". Rivista di Agronomia , n. 4 - pp533-543.
43. BORSELLI L. (1995) . "FUSLE: A COMPUTER PROGRAM FOR SOIL LOSS RISK ANALYSIS BY FUZZY VARIABLES AND POSSIBILITY DISTRIBUTIONS". Quaderni di scienza del suolo - C.N.R. - Firenze - Vol . VI. (4 citations in ISI Journals)
44. BORSELLI L. (1995)- " MODIFIED POCKET CONE PENETROMETER FOR THE ASSESSMENT OF SURFACE AND SUBSURFACE SOIL PARAMETERS" Rivista di Agricoltura Subtropicale e Tropicale Vol. 89 (1), pp 61-74.
45. BORSELLI L, C. GIORDANI (1994) -"PENETROMETRO '"DROP CONE" MODIFICATO PER LA MISURA DI UN INDICE DI DUREZZA DELA CROSTA SUPERFICIALE DEL SUOLO". Rivista di Agricoltura Subtropicale e Tropicale Vol. 88 (2) . pp 305 – 313.
46. GIORDANI C., L. BORSELLI. , F. AGOSTINI (1993) - "CRUST STRENGTH ON A SOIL TREATED WITH GYPSUM : MAZOWE SOIL (ZIMBABWE)". Rivista di Agricoltura Subtropicale e Tropicale Vol. 87 (4) . pp 387- 396.
47. BORSELLI L.. (1993) - " STIME SPEDITVE DEL TASSO DI EROSIONE POTENZIALE MEDIO ANNUO DEL SUOLO SECONDO LA PROCEDURA USLE: UN CODICE DI CALCOLO AUTOMATICO". Rivista di Agricoltura Subtropicale e Tropicale Vol. 87 (4) . pp 397- 419.
48. BORSELLI L.. (1993) "TEMPORAL CHANGES IN SOIL ERODIBILITY". C.N.R. - Quaderni di scienza del suolo , FIRENZE. vol. V , pp 23-46.
49. BORSELLI L., BUSONI E., TORRI D., (1992). Applicabilità del S.C.S. Curve Number method: il fattore lambda per la stima del deflusso superficiale, in: C.N.R.-G.N.D.C.I., Linea 1, Rapporto 1989, 43-56.
50. BORSELLI L (1991) - " ANALISI DELLA AFFIDABILITA` DELLA PROCEDURA SCS CURVE NUMBER". C.N.R. - Quaderni di scienza del suolo vol. III , pp. 75-96, FIRENZE
51. BORSELLI L. (1989)- "PREVISIONE DEI DEFLUSSI SUPERFICIALI SU VERSANTE: IL METODO S.C.S CURVE NUMBER E SUA APPLICABILITA` NELL'AMBIENTE COLLINARE ITALIANO". - C.N.R. - Quaderni di scienza del suolo - vol. II , pp. 145-160. FIRENZE.

Selected Presentations as Invited Key notes,
Invited Seminars and in International Conferences

INVITED KEY NOTES

- **Using connectivity to assess soil erosion and mass movement processes in the landscape: applications and discussion of a new paradigm. CONNECTEUR –Scientific Kickoff Meeting (COST Action ES 1306) Wageningen, The Netherlands, August 25-26, 2014**

- Using connectivity to assess soil erosion in the landscape: applications and discussion of a new paradigm. **"Sediment connectivity and its use for large scale models", Meeting , JRC. Ispra; ITALY 26 January , 2015**
- Sediment connectivity and travel times: concepts and applications. **"Summer School on Geomorphology: Sediment dynamics in high-mountain environments" 31/8-6/9 2015 , Feichten im Kaunertal, Austria (DOI: https://dx.doi.org/10.13140/RG.2.2.29760.53761)**
- Conectividad de Flujos de Sedimentos: conceptos, aplicaciones y desafíos **– Invited seminar. 15-03-2023. Universidade Federal de Espirito Santo (UFES), Vitoria, BRASIL**

GENERAL (Conference presentation and Invited Seminars)

- Connectivity approach for flow and sediment delivery and application to SDR assessment(2009)
- Differential Evolution Application In Earth Sciences(2008)
- Flank collapse and new relative instability analysis techniques (2012)
- PESERA-L, the shallow landslides contribution to specific sediment yield (SSY), as extensions of the PESERA soil erosion model (2010)
- State of the art and future developement of erosion modelling in Italy and Europe (2009)
- EUROSEM (European Soil Erosion Model) - Eurosem 2008 (2008)
- Valutazione del rischio idrogeologico in Messico: metodologie e software tools **- Padova 24 Giugno 2013 – CNR-IRPI (in Italian)**
- **Including hillslope sediment connectivity in SWAT–the Siret Basin case study** http://connecteur.info/wp-content/uploads/2014/08/VIGIAK_COST_WagAug2014.pdf
- Modelado De Geomateriales y Geosistemas para la evaluacion de peligros Geologicos **- San Luis Potosi 9 septiembre 2016 (in spanish)**
- Flank collapses and new relative instability analysis(RIA) techniques applied to active strato-volcanoes**. Invited seminar - Boise State University, Boise (ID) 19/09/2016 (in English) -** https://dx.doi.org/10.13140/RG.2.2.26100.35207
- Slope Stability Analysis Program - Programma di calcolo per l'analisi della stabilità dei pendii - SSAP2010**. Invited Seminar. UNESCO Chair on the Prevention and Sustainable Management of Geo-Hydrological Hazards, University of Florence, Italy. 10-11-2016 (in italian)** https://dx.doi.org/10.13140/RG.2.2.17292.31362
- Problematiche del dissesto idrogeologico e della stabilità dei versanti: sfide e opportunità**. laboratorio di Geomatica, ist. tecnico V. Cardarelli. La spezia 09/05/2017 (in italian)**
- Extreme Gulling in Mexico in semi-abandoned agricultural lands and in active volcanic areas - field studies and modelling -2018**.**
  Workshop - Gully erosion inventory and proposal for a modelling activity -Joint Research Centre, Ispra, Italy, 19 – 20 March 2018 (in english)
- Fondamenti geologici e geomorfologici nelle verifiche di stabilità dei pendii**. GEOSCIENZE PER UN FUTURO SOSTENIBILE, Torino 17-22 Settembre 2022. Pre Congress Workshops. (in Italian)**
- FUNDAMENTOS GEOLÓGICOS, GEOMORFOLÓGICOS Y GEOTECNICO EN ENSAYOS DE ESTABILIDAD DE TALUDES - CASOS DE ESTUDIO EN MÉXICO Y ITALIA -2023**. Convención Geológica Nacional, 23-27 abril 2023, Ciudad de México, México.** http://dx.doi.org/10.13140/RG.2.2.11815.21926

DECOLOG SOFTWARE (www.decolog.org)

- Deconvoluzione di misture con componenti log-normali entro distribuzioni granulometriche **(Napoli, IT, Univ. Federico II. (22 february 2011) (in italian).**
- Deconvolution fo Mixture's components inside Particle Size Distribution (DICIM-UASLP, Mexico) (18-may-2016).

SSAP SOFTWARE (Slope stability software) (www.ssap.eu)SSAP2010-Slope Stability Analysis Program - Invited seminar CNR-IRPI,Perugia, ITALY, (28 January 2013) (in italian)

- Evaluación de la estabilidad de taludes complejos en suelo y roca por medio de software SSAP 2010: aplicaciones en Italia y -México **(Invited seminar, 21 March 2013, Mexico ;DF, Sociedad Geologica Mexicana)(in spanish)**
- Advanced 2D Slope Stability Analysis by LEM with SSAP software**. (PDF tool appendix to....** ***BORSELLI L. 2013. Advanced 2D Slope stability Analysis by LEM by SSAP software: a full freeware tool for teaching and scientific community. IN "ICL Landslide Teaching Tools". Kyoji Sassa, Bin He, Mauri McSaveney, Osamu Nagai (EDS.). International Consortium on Landslides (ICL). PP. 428. ISBN: 978-4-9903382-2-0*****) (in english)**
- SSAP2010-Slope Stability Analysis Program - Invited seminar, Politecnico di Bari ITALY, (21 January 2014) (in italian)
- Modelado de estabilidad de taludes en el sistema solar:desde Marte, Luna y Ceres hasta Volcanes y microtaludes**. - Invited seminar Centro de Geociencias UNAM, Juriquilla Queretaro, 13 april 2016 , (in spanish)**
- Evaluación de la estabilidad de taludes complejos en suelo y roca por medio de software SSAP2010 aplicaciones en Italia y México**. - Invited seminar at Universidad Autonoma de Nuevo Leon (UANL), Linares, 10-10-2016 (in spanish)**
- Slope Stability Analysis Program - Programma di calcolo per l'analisi della stabilità dei pendii - SSAP2010**. Invited Seminar. UNESCO Chair on the Prevention and Sustainable**

Management of Geo-Hydrological Hazards, University of Florence, Italy. 10-11-2016 (in italian) http://dx.doi.org/10.13140/RG.2.2.17292.31362

- **La stabilità dei versanti secondo le NTC 2018:cenni teorici e algoritmi di applicazione con SSAP.**
  IL RUOLO DELLA GEOINGEGNERIA NELLE NTC 2018 E NEGLI EUROCODICI: OPPORTUNITÀ DA COGLIERE **. Politecnico di Milano 29 maggio 2018 (in italian)**
- **Evaluación de la estabilidad de taludes complejos en suelo y roca por medio de software SSAP2010 aplicaciones en Italia y México. - Invited seminar at IPICYT, San Luis Potosi, 29-08-2019 (in spanish)**
- **Corso Generale Software SSAP 2010** (freeware). **Invited course (24 hours duration). UNESCO Chair on the Prevention and Sustainable Management of Geo-Hydrological Hazards, University of Florence, Italy. 9-30 October 2019.(in italian)**
- **Introduzione al codice SSAP 2010 e descrizione delle sue funzionalità. Invited seminar. Dipartimento di Ingegneria Civile e Ambientale. Universita' degli Studi di Firenze (IT) 23-09-2022 (in italian)**

DIDACTIC MATERIALS (presentations, in short courses ,organized from public institucions)

- **Geotecnica - Corso Base . Ordine dei Geologi del Lazio, novembre 2021 - gennaio 2022, (in Italian) (27hours)**

DISSEMINATION

- **Attivita' della ricerca italiana in scienze della terra nella UASLP (2016) (in italian)**

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