

## CV

- Marco Bittelli, nato a Bologna il 16.02.1967, residente a Sasso Marconi (BO), Via San Leo, 29, 40037. CF: BTTMRC67B16A944X
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- Email: [marco.bittelli@unibo.it](mailto:marco.bittelli@unibo.it); Tel. 051-2096694; Cell. 351-8791858

- Website: [www.marcobittelli.it](http://www.marcobittelli.it)
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- 2016- Professore associato, Università di Bologna
  - 2011-2018 Associato in ricerca, Istituto di Fisica Applicata (IFAC), Consiglio Nazionale delle Ricerche, Sesto Fiorentino.
  - 2006-2016 Ricercatore, Dipartimento di Scienze Agrarie, Università di Bologna.
  - 2009-2012 Professore aggiunto, Washington State University, Pullman, WA, USA.
  - 2003-2006 Vincitore concorso *Rientro dei Cervelli* (MIUR)
  - 2002-2003 Post-dottorato, Washington State University, Pullman, WA, USA.
  - 2001-2002 Visiting scientist, Università di Heidelberg, Germania.
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- 1998-2001 Dottorato di ricerca (PhD) in Soil Physics, Washington State University, Pullman, WA, USA.
  - 2000-2001 Visiting Scientist, Dipartimento di Fisica, Università di Heidelberg, Germania.
  - 1996-1998 Master (MS) in Soil Science, Washington State University, Pullman, WA, USA.
  - 1989-1994 Laurea in Scienze agrarie, Università di Bologna, Italia.
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- *Abilitazione Scientifica Nazionale di I Fascia ottenuta il 07/01/2014 con validità fino al 07/01/2024*
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- Indicatori bibliometrici (al 22.05.2023)

Scopus (74 pubblicazioni, H-index= 28, 3112 citazioni)

Google Scholar (129 pubblicazioni, H-index= 31, 4401 citazioni)

Web of science (96 pubblicazioni, H-index= 26, 2683 citazioni)

## Attività di ricerca

Ha partecipato ai seguenti progetti di ricerca nazionali ed internazionali:

- 2023-2026. Wish-roots, Making soil health a breeding target. Towards Healthy, Resilient and Sustainable Agricultural Soils. EJP Soil (EU) (partner).
- 2017-2023. Progetti Nazionali di Ricerca in Antartide PNRA16\_00212. Dielectric Characterization of the Polar Cap, by perforations at Dome-C (partner).
- 2018-2021 Progetto SWAMP "Smart Water Management Platform" (EU H2020-EUB-02-2017) (Project Role and responsibility: Research collaboration).
- 2019-2021. Prediction of soil hydro-agricultural properties using Ground Penetrating Radar for improving Agricultural practices (Scheme for Promotion of Academic and Research Collaboration, India). Collaboration between Indian Institute of Science, Bangalore, India and University of Bologna. (Project Role and responsibility: International PI).
- 2016-2018. Monitoraggio intelligente per infrastrutture sicure (INFRASAFE). POR-FESR, European Regional Development Fund, 2014-2020. (Project Role and responsibility: partner).
- 2016-2018. Dielectric spectroscopy of soils (SOILSPECTRA). Institute of Applied Physics (IFAC), National Research Council, Italy. (Project Role and responsibility: partner).
- 2012-2015. Measurement of soil salinity: comparison of methods. Financing company: Decagon Devices Inc., Pullman, WA, USA. (Project Role and responsibility: PI).
- 2011-2015. An intelligent system to detect forest fires. European Commission. EUROSTAR Projects, 5717 EFIRE EUROSTARS. (Project Role and responsibility: partner)
- 2008-2014. Agrosценari: Scenari di Adattamento dell'agricoltura Italiana ai cambiamenti climatici. (Mipaaf, Decreto Ministeriale n. 325/7303/2007 del 28 dicembre 2007). (Project Role and responsibility: partner)
- 2007-2010. Case Studies on Research Planning (ARCHAIA): , Characterisation, Conservation and Management of Archaeological Sites. <http://www.archaia.unibo.it/> European Commission. (Project Role and responsibility: partner)
- 2005-2008. Nuove Metodologie relative a progetti integrati di parchi archeologici dell'area mediterranea. Elaborazione, sperimentazione, verifica di tecnologie avanzate e trasferibilità dei risultati nella valorizzazione di aree a rilevante interesse culturale, ambientale e artistico.

Selezione di casi studio in Siria settentrionale e Turchia Orientale. Ministry of Education, Universities and Research, (Rome,Italy). FIRB. (Project Role and responsibility: partner).

- 2003-2006. Shallow Landslides Investigation Device (SLID): a tool to assess land susceptibility to shallow landslides. European Commission. LIFE environment. (Project Role and responsibility: partner).
- 2003-2006. Water Quality Protection, Measuring Hydraulic Conductivity and Solute Diffusion Coefficients to Assess Water Flow and Pollutants Transport in Soils and Rocks". Ministry of Education, Universities and Research, (Rome,Italy). Grant "Rientro dei Cervelli" (Brain Drain Project)(Project Role and responsibility: partner).
- 1999-2001. A low cost scanning thermodielectric analyzer to obtain freezing characteristics of foods, soils, and other materials. Financing agency: Washington Technology Center, Seattle, WA, USA. (Project Role and responsibility: leader).
- 1997-1999. Effect of foliar application of Chitosan on water use in field crops. Financing agency: Washington Technology Center, Seattle, WA, USA. (Project Role and responsibility: leader).
- 1995-1996. Linking Geographical Information Systems (ArcView) and Computer Models (CropSyst), for the assessment of water and solutes transport on large scale. (Project Role and responsibility: leader).

### **Conseguimento di premi e riconoscimenti nazionali ed internazionali:**

- 2021. Dalla base Concordia, nuove misure per monitorare i cambiamenti dei ghiacci in Antartide.<https://magazine.unibo.it/archivio/2021/03/08/dalla-base-concordia-nuove-misure-per-monitorare-i-cambiamenti-dei-ghiacci-in-antartide>
- 2008. L'Università di Bologna arriva su Marte.  
<https://magazine.unibo.it/archivio/2008/06/04/marte>
- 2008 Associate Fellow dell'Istituto di Studi Avanzati dell'Università di Bologna.  
<http://www.isa.unibo.it/ISAIT/default.htm>
- 2007. Gli scavi di Tilmen Höyük in Turchia, tra archeologia e ambiente.  
<https://magazine.unibo.it/archivio/2007/07/05/gli-scavi-di-tilmen-hoyuk>

- 1999 Soil Science Society of America (SSSA). Editors Citation for Excellence in Manuscript Review.

### **Recensioni di libri di testo**

- 2016. Review of Soil Physics with Python: Transport in the Soil–Plant–Atmosphere  
Philippe C. Baveye, Vadose Zone Journal,  
<https://access.onlinelibrary.wiley.com/doi/10.2136/vzj2015.12.0162br>
- 2021 Review of Soil Physics with Python: Transport in the Soil–Plant–Atmosphere  
Teruhito Miyamoto, Japanese Soil Science Society, <https://js-soilphysics.com/downloads/pdf/148051.pdf>

### **Partecipazione in qualità di relatore a congressi e convegni di interesse nazionale ed internazionale.**

- 2022 Anello M., Riani M., Laurini F., Bittelli M., Bordoni M., Meisina C., Valentino R., Robust statistical processing of long-time data series on soil-atmosphere interaction: preliminary results. 14<sup>th</sup> International Conference on Geostatistics for Environmental Applications, Parma, 2022.
- 2020 Martini, E., Wollschläger U., Bittelli M., Tomei F., Werban U., Zacharias S., and Roth K. Process-based hydrological modeling: accounting for subsurface heterogeneity by integrating pedology, geophysics and soil hydrology. European Geosciences Union, 2020-9894.
- 2016 Olmi R and M. Bittelli, Identification of hidden relaxations by even-order derivative, Electromagnetic Wave Interaction with Water and Moist Substances (ISEMA 2016, Firenze).
- 2014 Bittelli M. Tecniche ed approcci per la ricerca agronomica sul suolo 29 Gennaio 2014 – Bologna Workshop Tecniche di laboratorio per l'analisi della porosità del suolo. Società Italiana di Agronomia.
- 2014 Meisina C., Bordoni M., Zizioli D., Chersich S., Valentino R., Bittelli M. (2014). Soil-atmosphere interaction in a slope affected by shallow landslides: an example in Northern Italy. In: Khalili N., Russell A., Khoshgalb A. (Eds.), Unsaturated Soils: Research & Applications, Vol. 2, 1409-1416.
- 2011 Antolini G., Tomei F. and Bittelli M. Testing of a coupled soil water and heat model under a vegetated surface in Emilia-Romagna (Italy), Geophysical Research Abstracts (EGU, Vienna).
- 2004 Bittelli M., M. Flury, Measuring liquid water content in frozen porous media, in Proc. Soil Science Society of America, Seattle, WA, 2004, Seattle, USA.

- 2003 Bittelli M., M. Flury and K. Roth , Determination of Ice Content in Frozen Porous Media by Dielectric Spectroscopy, in Proc. European Geophysical Society, Nice, France.
- 2001 Bittelli M., M. Flury and G.S. Campbell , A Thermo-Dielectric Analyzer to Measure the Moisture Characteristic in Porous Media, in Proc. European Society of Agronomy, Simp. Modeling Cropping System, Florence, Italy.
- 2001 Bittelli M., M. Flury and G.S. Campbell , A Thermo-Dielectric Analyzer to Measure the Moisture Characteristic in Porous Media, in Proc. European Geophysical Society, Nice, France.
- 1999 Bittelli M., M. Flury and G.S. Campbell , Determination of Soil Moisture Characteristic from Soil Freezing Experiments, in Proc. Soil Science Society of America, Salt Lake City, UT, 92.
- 1999 Mathison J.B., M. Bittelli, O. Badini, M. Flury, G.S. Campbell and E.J. Nichols, Reduction of Evapotranspiration by Foliar Application of Chitosan, in Proc. Crop Science Society of America, Salt Lake City, UT, 223.
- 1998 Campbell, G.S., M. Bittelli and J.B. Mathison, Soil Moisture Characteristic Estimated from TDR-measured Soil Freezing Characteristics, in Proc. Soil Science Society of America, Baltimore, MA, 179.
- 1998 Bittelli M., G.S. Campbell, M. Flury and C.O. Stockle, Fractal Characterization of Particle Size Distribution in Soils, in Proc. Soil Science Society of America, Baltimore, MA, 189.
- 1997 Donatelli M., C. Stockle, R. Nelson, C. Gardi, M. Bittelli, G. Campbell, 1997, Uso dei software CropSyst e ArcInfo per la valutazione degli effetti della gestione di sistemi colturali attuati in due aree dell'Emilia-Romagna, Atti XXXI Convegno della Società Italiana di Agronomia, Milano.

## Spin Off

Risultati ottenuti nel trasferimento tecnologico in termini di partecipazione alla creazione di nuove imprese (spin off), sviluppo, impiego e commercializzazione di brevetti

- 2021. Collaboratore dello Spin-Off, Vaimee <https://vaimee.com/> , azienda di programmazione e gestione dati, nell'ambito di un progetto di gestione delle risorse idriche in agricoltura.
- 2010-Responsabile scientifico per l'Università di Bologna dello spin-off, finanziato dalla regione Emilia-Romagna, dell'azienda GAIAG Srl: <http://www.emiliaromagnastartup.it/imprese/gaiag>.

## Attività didattica

- 2003- 2006

**Lezioni, seminari, esercitazioni e assistenza di laboratorio fisico e informatico** nei corsi di studio del settore AGR/02, Classificazione agronomica e Cartografia dei suoli nei cicli previsti dall'ordine degli studi della Facoltà. Ruolo: Professore a contratto.

- 2009

**Docente nella Summer School della Scuola di Archeologia dell'Adriatico.** Università di Bologna. Metodologie di indagine non invasiva e diagnostica per l'archeologia. Il Georadar (in Italiano).

- 2006-2013

**Docente del corso in Inglese Soil Physics** nell'ambito del Master Internazionale in Land and Water Conservation Master. Ha inoltre seguito gli studenti del Master nella redazione delle tesi e durante il periodo di stage negli USA. (In Inglese).

- 2006-oggi:

**Fisica del Suolo** (66030, 6 cfu, AGR/02) nei corsi di Laurea Magistrale in Scienze e Tecnologie agrarie e in Progettazione e Gestione degli Ecosistemi Agro-territoriali, Forestali e del Paesaggio. (in Italiano).

**Agronomia Generale** (02098 – 6 cfu, AGR/02) Componente del corso integrato Agronomia Generale Ed Ecologia Agraria (C.I.). Laurea in Scienze del territorio e dell'ambiente agro-forestale (in Italiano).

**Agrometeorologia, Fisica del Suolo ed Ecologia Agraria** – (98084- 6 cfu, AGR/02) Componente del corso integrato Gestione ed Ecologia dell'agroecosistema (C.I.) (Laurea triennale in Tecnologie per il territorio e l'ambiente agro-forestale) (in Italiano).

**Metodologia sperimentale ed analisi dei dati** – (66106-5 cfu, AGR/02) Componente del corso integrato Monitoraggio ed analisi del sistema acqua-suolo (C.I.), (Curriculum analisi e monitoraggio degli ecosistemi). Laurea Magistrale in Progettazione e gestione degli ecosistemi agro-territoriali, forestali e del paesaggio(in Italiano).

- 2014-2022

**Docente del corso Philosophy of Science and Scientific Methods** nel Dottorato di Ricerca in: Scienze e tecnologie agrarie, ambientali e alimentari, (in Inglese).

- 2009-2012

**Adjunct Faculty** presso la Washington State University, Pullman, WA. Ha svolto attività didattica come membro dei docenti della Washington State University, presso il Department of Crop and Soil Sciences.

**Docente ed organizzatore del corso della Società Italiana di Agronomia (SIA).** Tecniche ed approcci per la ricerca agronomica sul suolo: Bologna (29/2/2014) Tecniche di laboratorio per l'analisi della porosità del suolo (tomografia a raggi X).

### **Attività didattica nazionale ed internazionale (seminari e corsi) su invito**

- 2020. Workshop on In-situ Testing and Geophysical Characterization, Department of Civil Engineering Indian Institute of Science, Bangaluru, India.
- Invited speaker at the G.S. Campbell lecture: "Dielectric spectroscopy to investigate ice and frozen porous media: a journey between spatial and time scales"  
<https://css.wsu.edu/seminars/the-campbell-lecture/>, Washington State University, USA.
- 2018. Short Course: Soil Physics with Python. Indian Institute of Science, Bangaluru, India
- 2018. Short Course: Non Linear Time Series Analysis. Indian Institute of Science, Bangaluru, India.
- 2018. Short Course: Soil Physics with Python. University of Suratthani Rajabhat, Suratthani, Thailand.
- 2018. Short Course: Soil Physics with Python. University of Zagreb, Zagreb, Croatia.
- 2017. Short course: Soil Physics with Python. University of Zagreb, Zagreb, Croatia.
- 2016. Short course: Soil Physics with Python. University of Zagreb, Zagreb, Croatia.
- 2014. Invited Series of Lectures: Theory of Heat and Mass Transfer in Soil. Faculty of Mechanical Engineering, Cracow University of Technology, Cracow, Poland.
- 2012. Invited Lecture: The Ground Penetrating Radar. Decagon Devices Inc., Pullman, WA, USA.
- 2009. Invited Lecture: Research at the Soil and Environmental Physics group at the University of Bologna, Italy, an overview. University of Florida, Gainesville, FL, USA. August, 2009.
- 2009. Invited Lecture: L'utilizzo di metodi a pressione di vapore per la determinazione della curva di ritenzione idrica. Nell'ambito del corso di aggiornamento tecnico-scientifico in fisica e idrologia del suolo. Associazione Italiana Pedologi, CNR-ISAFOM, Napoli, 4-5 Giugno, 2009.
- 2009. Invited Lecture: Microwave Remote Sensing. Measuring soil water content: methods, limitations and future challenges. CNR-IFAC, Florence, May 20, 2009.
- 2009. Graduate Seminar: A 3-D Model of Surface and Subsurface Hydrology. Department of Biological Systems Engineering, Washington State University, USA. January, 2009.
- 2008. Lecture: The physics of Ground Penetrating Radar. Seeing beneath the soil - not intrusive investigation methodologies and diagnostics for archaeology. International Summer School, Ravenna-Marzabotto.
- 2006. Invited Lecture: Water balance at the field and watershed scale. WUEMED: Improving water use efficiency in Mediterranean Agriculture.  
<http://www.distagenomics.unibo.it/wuemed/index.html>

- 2006. Invited Lecture: Innovative methods for measuring soil water content. WUEMED: Improving water use efficiency in Mediterranean Agriculture.

## **Tesi di laurea, master e dottorato**

Tesi di dottorato: 3 + 2 (in corso)

Tesi di laurea magistrale e master: 11

Tesi di laurea triennale: 6

## **Attività Istituzionali**

- 2006

**Organizzatore e responsabile dell'accordo di scambio** siglato nel 2006, tra l'Università di Bologna e la Washington State University (Pullman, Washington, USA) per lo scambio di studenti delle lauree triennali, magistrali e dottorato di ricerca.

- 2006-2013

**Coordinatore del Master in Land and Water Conservation**, istituito tra il Dipartimento di Scienze e Tecnologie Agro-ambientali e il Department of Biological Systems Engineering della Washington State University.

- 2014

**Organizzatore e responsabile dell'accordo di scambio siglato** in Aprile 2014, tra l'Università di Bologna e la University of Florida (Gainesville, Florida, USA) per lo scambio di studenti delle lauree triennali, magistrali e dottorato di ricerca.

- 2014-2022

**Membro del collegio dei docenti** nel Dottorato di Ricerca in: Scienze e tecnologie agrarie, ambientali e alimentari.

## **Attività editoriale**

- 2020-2022 Associate Editor of Vadose Zone Journal
- 2020-2021 Associate Editor Geophysics
- 2019-2020 Guest Editor of the journal Water.
- 2016-2018 Associate Editor della Rivista Measurement Science and Technology



## Organizzazione di Congressi e partecipazione a commissioni

- 2008 Membro del Comitato Organizzatore del X Congress of the European Society for Agronomy (ESA) , Bologna, Italy.
- 2016 Organizzatore e membro della Commissione Scientifica del Congresso Internazionale: International Conference on Electromagnetic Wave Interaction with Water and Moist Substances (ISEMA 2016, Firenze). <http://isema2016.org/>

## Libri

- 2022. Bittelli M., R. Olmi and R. Rosa. [Random Processes Analysis with R](#). *Oxford University Press*.
- 2017. Huffaker R., M. Bittelli and R. Rosa. [Non Linear Time Series Analysis with R](#). *Oxford University Press*.
- 2015. Bittelli M., G. S. Campbell and F. Tomei. [Soil Physics with Python](#), Transport in the Soil-Plant-Atmosphere System. *Oxford University Press*.

## Capitoli di libri

- 2020. Layered Nature. Assessing and Monitoring the Environment for the Development of an Archaeological Park Paola Rossi Pisa, Luca Berichillo, Marco Bittelli, Vincenzo Fortunati, Marco Vignudelli. In: An “Integrated Approach for an Archaeological and Environmental Park in South-Eastern Turkey”. Ed.: N. Marchetti, G. Franco, S. F. Musso, and M.B. Spadolini. Springer Nature, Switzerland.
- 2017. Ruairuen W., G. J. Fochesatto, M. Bittelli , E. B. Sparrow, M. Zhang and W. Schnabel. Evapotranspiration in Northern Agro-Ecosystems: Numerical Simulation and Experimental Comparison. In: “Current Perspective to Predict Actual Evapotranspiration”, Ed. Daniel Bucur, Chapter 4, pp.65-84. ISBN 978-953-51-3174-8, doi: 10.5772/intechopen.68347 .
- 2016. Bordoni, M., C. Meisina, S. Chersich,, M. Persichillo, R. Valentino, and M. Bittelli. Monitoring of hydrological parameters for the identification of shallow landslides triggering: A case study from Northern Italy, DOI: 10.1201/b21520-49 In book: Landslides and Engineered Slopes. Experience, Theory and Practice, pp.475-482
- 2015. Meisina, C. , M. Bordoni, M. Persichillo, A. Vercesi, G. Bischetti, E. Chiaradia, C. Bassanelli, C. Vergani, R. Valentino, M. Bittelli and S. Chersich. Analisi del ruolo dei vigneti sulla stabilità

di ver- sante in un'area soggetta a frane superficiali. In book: Recuperiamo Terreno, Chapter: 1, Publisher: Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), pp.232-239.

- 2014. Valentino, R., M. Bordoni, C. Meisina, D. Zizioli, M. Bittelli and S. Chersich. Monitoring and Modelling of Soil–Atmosphere Interaction on a Slope Affected by Shallow Landslides Chapter · DOI: 10.1007/978-3-319-09057-3\_277 In book: Engineering Geology for Society and Territory, Chapter: Monitoring and Modelling of Soil–Atmosphere Interaction on a Slope Affected by Shallow Landslides, Publisher: Springer International Publishing, Switzerland, Editors: G. Lollino et al. (eds, pp.1563-1566).
- 2014 Bordoni M., D. Zizioli, C. Meisina, R. Valentino, M. Bittelli and S. Chersich. Rainfall-Induced Landslides: Slope Stability Analysis Through Field Monitoring. In: Landslide Science for a Safer Geoenvironment. Eds. K. Sassa, P. Canuti and Y. Yin, pp. 273-279, Springer. ISBN: 978-3-319-04995-3 (Print), 978-3-319-04996-0 (Online).
- 2011 Bittelli, M., A. Pistocchi, F. Tomei, P. P. Roggero, R. Orsini, M. Toderi, G. Antolini and M. Flury, CRITERIA-3D: A Mechanistic Model for Surface and Subsurface Hydrology for Small Catchments, In: Land Use and Agriculture Measurement and Modelling. Ed. M. K. Shukla, CABI Publishing. ISBN: 184593797X.
- 2010 Notarnicola, C., B. Ventura, L. Pasolli, F. Di Giuseppe, M. Petitta, G. Bonafe, L. Caporaso, A. Spisni, M. Bittelli. Exploitation of C and X band SAR images for soil moisture change detection estimation in agricultural areas (Po valley-Italy). Book Series: The International Society for Optical Engineering, 7829, 78290G, 10.1117/12.87049
- 2009 Bittelli M., Georadar, In: Groma 2. In profondità senza scavare, Ed. E. Giorgi, Casa Editrice BraDypUS, Bologna, pp. 251-272.
- 2008 Paola Rossi Pisa, G. Bitelli, M. Bittelli, M. Speranza, L. Ferroni, P. Catizone and M. Vignudelli. Environmental Assessment of an Archaeological Site for the Development of an Archaeological Park. ARCHAIA. Case studies on Research Planning, Characterisation, Conservation and Management of Archaeological Sites. Edited by N. Marchetti and I. Thuesen. Archaeopress, Oxford, England.

## Publicazioni scientifiche

- 2023. Anello, M., Bittelli M., M. Bordoni, F. Laurini, C. Meisina, M. Riani and R. Valentino. Robust statistical processing of long-time data series on soil-atmosphere interaction, *Mathematical Geosciences*, accepted.
- 2022. Bittelli M., S. Pellegrini, R. Olmi, M.C. Andrenelli, G. Simonetti, E. Borrelli and F. Morari. Experimental evidence of laser diffraction accuracy for particle size analysis, *Geoderma*, 409, 115627.
- 2022. Fusco F., M. Bordoni, R. Tufano, V. Vivaldi, C. Meisina, R. Valentino, M. Bittelli, and P. De Vita. Hydrological regimes in different slope environments and implications on rainfall thresholds triggering shallow landslides. *Natural Hazards*, doi.org/10.1007/s11069-022-05417-5.
- 2021. Bittelli M., F. Tomei, P. Anbazhagan, R.R. Pallapati, P. Mahajan, C. Meisina, M. Bordoni and R. Valentino. Measurement of Soil Bulk Density and Water Content with Time Domain Reflectometry: Algorithm Implementation and Method Analysis, *Journal of Hydrology*, 598, 126389
- 2021. Olmi R., M. Bittelli, G. Picard, L. Arnaud, A. Mialon and S. Priori. Investigating the influence of the grain size and distribution on the macroscopic dielectric properties of Antarctic firn. *Cold Regions Science and Technology*, 185, 103254
- 2021. Dourigo et al. The International Soil Moisture Network: serving Earth system science for over a decade. *Hydrol. Earth Syst. Sci.*, 25, 5749–5804.
- 2021. Ghanbarian B., A. Hunt, M. Bittelli, M. Tuller and E. Arthur. Estimating specific surface area: Incorporating the effect of surface roughness and probing molecule size. *Soil Science Society of America Journal*, 1–12.
- 2021. Bordoni M., F. Inzaghi, V. Vivaldi, R. Valentino, M. Bittelli and C. Meisina. Data-Driven Method for the Temporal Estimation of Soil Water Potential and Its Application for Shallow Landslides Prediction. *Water*, 13, 1208.
- 2021. Bordoni M., M. Bittelli, R. Valentino, V. Vivaldi and C. Meisina. Observations on soil-atmosphere interactions after long-term monitoring at two sample sites subjected to shallow landslides. *Bull Eng Geol Environ* (2021).<https://doi.org/10.1007/s10064-021-02334-y>
- 2020. Anbazhagan P., M. Bittelli, R. Palapati and P. Mahajan. Comparison of Soil Water Content Estimation Equations using Ground Penetrating Radar, *Journal of Hydrology*, 588, 125039.

- 2020. Rocchi I., C.G. Gragnano, L. Govoni, M. Bittelli and G. Gottardi. Assessing the performance of a versatile and affordable geotechnical monitoring system for river embankments. *Physics and Chemistry of the Earth*, 10287.
- 2019. Bordoni, M., B. Corradini, L. Lucchelli, R. Valentino, M. Bittelli, V. Vivaldi and C. Meisina. Comparison Between Empirical and Physically-Based Thresholds for the Occurrence of Shallow Landslides in a Prone Area of Northern Italian Apennines. *Water*, Special Issue: Rainfall Thresholds and Other Approaches for Landslide Prediction and Early Warning, doi:10.3390/w11122653, 11, 1-28.
- 2019. Meisina C., M. Bittelli, R. Valentino, M. Bordoni and R.T. Jover. Advances in Shallow Landslide Hydrology and Triggering Mechanisms: A Multidisciplinary Approach. *Geofluids*, 1607684, doi.org/10.1155/2019/1607684
- 2019. Bittelli M., M.C. Andrenelli, G. Simonetti, S. Pellegrini, G. Artioli, I. Piccoli and F. Morari. Shall we abandon sedimentation methods for particle size analysis in soils ? *Soil and Tillage Research*, 185, pp.36-46.
- 2018. Bordoni M., R. Valentino, M. Bittelli, C. Meisina and S. Chersich. A Simplified Approach to Assess the Soil Saturation Degree and Stability of a Representative Slope Affected by Shallow Landslides in Oltrepo' Pavese (Italy). *Geosciences*, 8, 472.
- 2018. Strati V., M. Alberi, S. Anconelli, M. Baldoncini, M. Bittelli, C. Bottardi, E. Chiarelli, B. Fabbri, Guidi V., K.G.C. Raptis , D. Solimando, F. Tomei, G. Villani and F. Mantovani. Modelling soil water content in a tomato field: Proximal gamma ray spectroscopy and soil-crop system models. *Agriculture*, 8(4), pp.1-18.
- 2018. Rocchi I., C.G. Gragnano, L. Govoni, A. Mentani, M. Bittelli, P. Castiglione, O. Buzzi and G. Gottardi. A new technique for deep in situ measurements of soil water retention behaviour. *Geotechnical Research*, pp.1-10.
- 2018. Lo Presti D., S. Stacul, C. Meisina, M. Bordoni and M. Bittelli. Preliminary Validation of a Novel Method for the Assessment of Effective Stress State in Partially Saturated Soils by Cone Penetration Tests. *Geosciences*, 8(1), 30.
- 2018. Bordoni M., M. Bittelli, R. Valentino, S. Chersich, M.G. Persichillo and C. Meisina. Soil Water Content Estimated by Support Vector Machine for the Assessment of Shallow Landslides Triggering: the Role of Antecedent Meteorological Conditions. *Environmental Modeling and Assessment*, doi:10.1007/s10666-017-9586-y, pp.1-20.

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