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DESCRIPTION

Geoderma - a global journal of **soil science** - welcomes authors, readers and soil research from all parts of the world, encourages worldwide **soil studies**, and embraces all aspects of soil science. The Journal particularly welcomes interdisciplinary work focusing on **dynamic soil processes** and their occurrence in space and time.

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Soil Scientists.

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ABSTRACTING AND INDEXING

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Irrigation, Drainage Abstracts
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Soil Genesis, Soil Mineralogy, Digital Soil Mapping, Soil-Geomorphology, Soil-vegetation-landscape Relationships, Remote Sensing of Soils
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Iron oxides, adsorption, phosphate, heavy metals, pesticides, soil remediation
L. Brocca, Perugia, Italy
- use of remote sensing observations for hydrological applications; - use of soil moisture observations for landslide prediction, erosion, numerical weather prediction; hydrologic and hydraulic modelling; real time flood forecasting; flooding risk analysis; flood frequency assessment (under climate change); optimization and management of hydro-meteorological networks
D.J. Brown, Pullman, Washington, USA
Proximal Soil Sensing VisNIR diffuse reflectance spectroscopy Digital Soil Mapping Tropical soil-geomorphology Soil Carbon Sequestration Site-Specific Agriculture
D.J. Brus, Wageningen, Netherlands
Pedometrics; more specific sampling design and spatial statistics
A. Castrignano, BARI, Italy
geostatistics; proximal sensing; multi-sensor data fusion
A. Cerdà, Valencia, Spain

soil erosion; soil hydrology; soil degradation; Desertification; Simulated rainfall

V. Chaplot, Scottsville, South Africa

Global carbon cycle; Global water cycle; Hydrologic, erosion and carbon modelling; Digital mapping; Climate change mitigation and adaptation

B. Chefetz, Rehovot, Israel

sorption organic pollutants soil organic matter

J. Chorover, Tucson, Arizona, USA

Soil chemistry

E.A.C. Costantini, Firenze, Italy

soil conservation; soil organic matter; digital soil mapping; geophysical sensors; geostatistics; soil geodatabases; soil moisture and temperature regimes; hydrology; soil classification; paleopedology and soils as part of our cultural heritage; terroir and land evaluation

J.W. Crawford, Invergowrie, Dundee, UK

modelling, fractals, biophysics, soil structure

M. Egli, Zürich, Switzerland

soil formation and evolution (incl. soil organic matter); soils in time and space; weathering (mechanisms and rates); clay mineralogy; landscape evolution, geomorphic processes, dating (radiocarbon, ^{10}Be)

E. Frossard, Eschikon, Switzerland

A.S. Gregory, Harpenden, Hertfordshire, UK

soil physical processes and functions, specifically soil water retention, soil consolidation/compaction/compression, and soil structure. I have recently changed focus slightly and am currently looking at C cycling under bioenergy crops and pasture grass, as related to soil physical properties

S. Grunwald, Gainesville, Florida, USA

Digital soil mapping, geostatistics, geospatial analysis, soil-landscape modeling, soil sensing, GIS, assessment of soil and environmental quality.

A.E. Hartemink, Madison, Wisconsin, USA

Digital soil mapping; Tropical soils; Pedology; Soil fertility

G.B.M. Heuvelink, Wageningen, Netherlands

geostatistics, pedometrics

R. Horn, Kiel, Germany

soil mechanics, soil structure formation and pore functions, gas transport, coupled hydraulic and mechanical processes, CT technique, waste deposit sealing systems, paddy fields, soil retention strategies, hydraulic processes in soils. tillage effects and landuse systems, Soil management

A. Horta, Eveleigh, New South Wales, Australia

Geostatistics and spatial statistics; Geographic information systems; Remote sensing; Soil contamination

B. Huang, Nanjing, China

Soil geochemistry and genesis; cycles of C, P, and trace elements in soil, soil environmental quality assessment

S. Imhoff, Esperanza, Argentina

soil management, soil physics (solid phase: soil porosity, soil aggregation, soil compaction, etc), soil-plant interactions.

K. Inubushi, Chiba, Japan

soil biology soil environment

S. Jeffery, Wageningen, Netherlands

M.B. Kirkham, Manhattan, Kansas, USA

soil-plant-water relations ; drought stress ; elevated carbon dioxide ;uptake of heavy metals by plants

H. Knicker, Sevilla, Spain

P. Krasilnikov, Moscow, Russian Federation

soil geography; soil classification; soil genesis; soil mineralogy; soils and food security

P. Lagacherie, Montpellier, France

R.M. Lark, Nottingham, England, UK

spatial variability, statistics, modelling, survey, soil information systems, digital soil mapping, pedometrics

H. Lin, University Park, PA, USA

B. Ludwig, Witzenhausen, Germany

dynamics of C and N; modelling of the dynamics of C and N and metal cations; infrared spectroscopy

B. Malone, Eveleigh, New South Wales, Australia

Soil genesis; Soils and the environment

B.P. Marchant, Nottingham, England, UK

spatial and temporal statistics particularly in relation to soil monitoring; precision agriculture and groundwater hydrology

J. Mataix-Solera, Elche, Spain
Forest fire effects on soil properties; Soil water repellency; Soil aggregate stability

N. McKenzie, Wembley, Western Australia, Australia

B. Minasny, Sydney, New South Wales, Australia
Pedometrics; Digital soil Mapping; Soil modelling; Pedotransfer functions; Soil Spatial Statistics

V.L. Mulder, Orleans Cedex 2, France
Remote sensing; Soil spectroscopy; Digital soil mapping; Geostatistics; Spatial modelling; soil mineralogy; soil organic carbon; Kriging for large datasets

L.J. Munkholm, Tjele, Denmark
soil quality, soil structure, soil physical properties, tillage, soil management, root growth, cover crops, crop rotation, X-ray CT.

Y.A. Pachepsky, Beltsville, Maryland, USA
For Geoderma: Artificial intelligence, artificial neural networks, regression tree, genetic algorithm, pedotransfer function, soil hydraulic properties, soil water flow, solute transport, spatial variability, soil pore space, soil structure, fate and transport of microorganisms, crop simulation.

D. Peak, Saskatoon, Saskatchewan, Canada

D.J. Pennock, Saskatoon, Saskatchewan, Canada
Landscape-scale pedology; hydripedology; landscape-scale assessment of greenhouse gas dynamics; soil genesis

Paulo Pereira, Vilnius, Lithuania

T. Rennert, Stuttgart, Germany
general soil chemistry/mineralogy and pedology; inorganic contaminants in soil (especially metals and cyanides); reactive transport; carbon stabilisation; dissolved organic matter; biogeochemistry of manganese and iron; infrared spectroscopy; wetland soils; interfacial processes; Andosols

D.G. Rossiter, Ithaca, New York, USA
soil geography; soil survey; land suitability evaluation; geostatistics applied to soil and related sciences; urban soils; Caribbean and northern Latin America including Brazil, northeast and southeast USA, northeast Canada, central and north China, Philippines, Thailand, Indonesia, Cameroon, Mozambique, India

C. Rumpel, Thiverval-Grignon, France
soil organic matter dynamics; soil carbon storage; black carbon; deep soil horizons; organic matter erosion; biogeochemistry; 13C; 14C

R. Schaetzl, East Lansing, MI, Michigan, USA
soil geomorphology, soil genesis, podzolization and Spodosols, soil mapping, loess and aeolian systems, GIS; pedoturbation

N. Senesi, Bari, Italy
soil organic matter, humic substances, organic amendments, composts, heavy metals, pesticide and chemical residues, spectroscopic methods

J. Shaw, Auburn, Alabama, USA
Pedology, Soil Genesis, Soil Survey, Soil Mineralogy

D.L. Sparks, Newark, Delaware, USA
Kinetics of soil chemical processes; Surface chemistry of soils; Sorption/desorption of metals; Redox chemistry of soils

A. Stein, Enschede, Netherlands
Spatial Statistics; Image Analysis; Spatial Uncertainty; Soil spatial variability; General statistics; Precision agriculture

B. Stenberg, Skara, Sweden
Soil diffuse reflectance spectroscopy; soil microbiology; especially processes and interactions with soil type and management; soil mapping; precision agriculture

G. Stoops, Gent, Belgium
soil micromorphology, soil mineralogy, weathering and laterites.

K.A. Sudduth, Columbia, Missouri, USA
Soil sensors; Reflectance spectroscopy; Precision agriculture; Spatial variability;

A.M. Tarquis, Madrid, Spain

J. Triantafyllis, Sydney, New South Wales, Australia
soil salinity assessment, salinity management, electromagnetic induction, EM inversion modelling, gamma-ray spectrometry, digital soil mapping, pedometrics, geostatistics

M. van Meirvenne, Gent, Belgium
Geostatistics, Pedometrics, GIS, Proximal sensing, Precision agriculture, Prospection, Archeology

C. Veen, Wageningen, Netherlands

B. van Wesemael, Louvain-la-Neuve, Belgium
Vis NIR spectroscopy, soil organic matter and digital soil mapping

B. Velde, Paris, France

clay mineralogy in surface environments especially related to plant activity; bio-geology of sorts; the observation of soil structures, cracks and aggregate structures, by image analysis; diagenesis of clay minerals; infra red and Raman spectra of clay type minerals; mineral synthesis under pressure and temperature

H. Vereecken, Jülich, Germany

hydraulic properties modelling water flow pedotransfer functions

A.A.B. Vieira, Guimarães, Portugal

erosion; land degradation; post-wildfire runoff and erosion processes; soil erosion mitigation techniques after forest fires; geomorphology; Geographical Information Systems and Remote Sensing; forest fires; natural hazards.

R. Viscarra Rossel, Canberra, Australian Capital Territory, Australia

Pedometrics Proximal soil sensing Soil spectroscopy Digital soil mapping

O. Wendroth, Lexington, Kentucky, USA

Soil Physics; Spatial and Temporal Statistics; Soil hydraulic properties; Field-scale of soil water and solute transport; Crop Remote Sensing; Precision Agriculture.

L. West, Fayetteville, Arizona, USA

pedology; soil survey; soil classification; soil characterization analysis; micromorphology; wetland soils; soil carbon dynamics

W. Wilcke, Bern, Switzerland

tropical land use, element cycles, nutrients, heavy metals, persistent organic pollutants, forest soils, stable isotopes.

J.H.M. Wösten, Wageningen, Netherlands

pedotransfer functions, soil physical measurement techniques, tropical peatlands.

C. Zaccone, Foggia, Italy

characterization of fresh and humified organic matter in soils and sediments; geochemistry of trace elements, radionuclides and organic pollutants; natural archives; evolution of organic matter in soils and sediments in relation to climate changes; biomass utilization in agriculture

G-L. Zhang, Nanjing, China

soil genesis, soil classification, soil mapping, urban soils, tropical soils, anthropogenic soils, paddy soils, element cycling, silicon, iron, soil-landscape relation, SOTER.

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INTRODUCTION

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State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods

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Discussion

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