

International Symposium
**Soil Processes under Extreme Meteorological
Conditions**

List of Posters

(in alphabetical order of corresponding authors)

Number	Authors	Address	Title
10	<i>Kari Austnes, Ståle Haaland, Øyvind Kaste, Live Semb Vestgarden, et al.</i>	Norwegian University of Life Sciences, Department of plant and Environmental Sciences, 1432 Ås, Norway	The CLUE project: Effects of climate change on flux of N and C: air-land-freshwater-marine links
11	<i>Ekkehart Bethge, Ulf Mohrlök, Dax Cahyadi</i>	Universität Karlsruhe, Institute of Hydromechanics, 76128 Karlsruhe, Germany	Impact of flood events on soil water fluxes and contaminant transport in retention areas
73	<i>Sergey Blagodatsky, Rüdiger Grote, Andrey Revetnev, Klaus Butterbach-Bahl</i>	Institute of Physico-chemical and biological problems in soil science, 142290 Pushchino, Russia	Modelling of extreme N oxides emissions from soil by thorough description of both enzymology of denitrification and gas diffusion
12	<i>Christina Bogner, Benjamin Wolf, Bernd Huwe</i>	University of Bayreuth, Soil Physics Group, 95440 Bayreuth, Germany	Dynamics of soil physical parameters and patterns of water flow under extreme meteorological boundary conditions
61	<i>Christina Bogner, Benjamin Wolf, Bernd Huwe</i>	University of Bayreuth, Soil Physics Group, 95440 Bayreuth, Germany	Dye tracing in the vadose zone – From field work to image analysis
13	<i>Christian Brümmer, Nicolas Brüggemann, Reiner Wassmann, Hans Papen</i>	Karlsruhe Research Centre, Institute for Meteorology and Climate Research, IMK-IFU, 82467 Garmisch, Germany	Soil-atmosphere exchange of N ₂ O, CH ₄ and CO ₂ in natural savannah and savannah converted to agricultural land in Burkina Faso (W. Africa)
45	<i>Gabriele Broll, Charles Tarnocai</i>	University of Vechta, ISPA, Dept. of Geo- and Agroecology, 49364 Vechta, Germany	The Effect of Freeze-Thaw Processes on Permafrost-Affected Soils in the Arctic
70	<i>Francois Buscot</i>	Helmholz Centre for Environmental Research (UFZ), Department of Soil Ecology, D 06120 Halle, Germany	Tracing Diversity and function of Soil and Mycorrhizal Fungi: potentials and limits of molecular approaches
63	<i>Søren Christensen, Flemming Ekelund</i>	Copenhagen University, Biological Institute, DK-1353 København, Denmark	No growth of soil protozoa at anoxic conditions
46	<i>Heleen de Wit, Mirjam Bloemerts, Richard F. Wright</i>	Norw. Institute for Water Research (NIVA), 0349 Oslo, Norway	Long-term changes in winter climate affect stream water nitrate: modeling winter soil processes in an upland catchment in Norway
1	<i>Nancy Dise</i>	Environmental and Geographical Sciences, Metropolitan University United Kingdom	Influence of dissolved organic carbon and extreme rainfall events on N ₂ O emission from riparian zones receiving agricultural runoff

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14	<i>Catherine Eimers</i> , Shaun Watmough, Jim Buttle, Peter Dillon	Trent University, Geography, K9J 7B8 Peterborough, Canada	The influence of extreme events and climate variations on long term patterns in stream chemistry
64	<i>Ruth H. Ellerbrock</i> , Stephan Glatzel, Tim Moore	ZALF Müncheberg, Institute for Soil Landscape Research, D-15374 Müncheberg, Germany	FTIR spectroscopic characterisation of SOM fractions from peat soils with different water regimes
40	Jaroslav Záhora, <i>Karel Fiala</i> , Petr Holub, Ivan Tůma	Institute of Botany, Academy of Sciences of the Czech Republic, Department of Ecology, CZ- 603 00 Brno, Czech Republic	Precipitation changes and plant and soil processes in different grassland ecosystems
60	Celi Luisella, Freppaz Michele, Phillips Marcia, <i>Filippa Gianluca</i> , Barberis Elisabetta, Zanini Ermanno	Università di Torino, DIVAPRA – Chimica Agraria, Laboratorio Neve e Suoli Alpini, 44, Via Leonardo da Vinci, I-10095, Grugliasco (TO), Italy	Seasonal dynamics of soil organic matter at a cold scree slope located below the limit of discontinuous alpine permafrost
74	<i>Foereid Bente</i> , Jo Smith, Matt Aitkenhead, Pete Smith	University of Aberdeen, Plant & Soil Science, Aberdeen, AB24 3UU, UK	ECOSSE – a globally applicable model of carbon and nitrogen dynamics in soil?
59	<i>Freppaz Michele</i> , Marchelli Marco, Celi Luisella, Zanini Ermanno	Università di Torino, DIVAPRA-Chimica Agraria, Laboratorio Neve e Suoli Alpini, 44, Via Leonardo da Vinci, I-10095 Grugliasco (TO), Italy	Snow removal and its influence on temperature and N dynamics in a grassland soil in the Alps (Vallée d'Aoste – NW Italy)
15	<i>Daniel Fröhlich</i> , Jürgen Prenzel, Friedrich Beese	University of Goettingen, 37077 Göttingen, Germany	Redistribution of Soil Water after Snow Melt and Summer Drought under closed Canopy and Clear Cut
16	<i>Dirk Gaul</i> , Dietrich Hertel, Christoph Leuschner	University of Göttingen, Plant Ecology, 37077 Göttingen, Germany	Changes in fine root biomass and necromass of Norway spruce as affected by experimentally induced frost and drought in South-East Germany
65	<i>Stefanie Goldberg</i> , Gerhard Gebauer	Universität Bayreuth, BayCEER-Labor für Isotopen Biogeochemie, 95440 Bayreuth, Germany	N ₂ O isotope and concentration profiles – a new tool to identify biogenic processes in soils
48	<i>Frank Hagedorn</i> , Adrian Kammer, Pavel Moiseev	Swiss Federal Institute for Forest, Snow and Landscape Research, Soil Sciences, 8903 Birmensdorf, Switzerland	Soil organic matter dynamics changes drastically across alpine treeline ecosystems in the Ural mountains
9	<i>Mahsa Haei</i> , Hjalmar Laudon	Department of Environmental sciences, Umeå University, Pedagoggränd 1 A, 40190730 Umeå, Sweden	The role of soil frost on the quality and quantity of DOC in a boreal riparian soil

Number	Authors	Address	Title
2	<i>Alexandra Hamberger</i> , Harold L. Drake, Marcus A. Horn	University of Bayreuth, Department of Ecological Microbiology, 95440 Bayreuth, Germany	Structure and Function of Fermenters and Methanogens in an Acidic Fen
47	<i>Kerstin Hentschel</i> , Werner Borken, Egbert Matzner	University of Bayreuth, Soil Ecology, 95440 Bayreuth, Germany	Effect of soil frost on N mineralisation and element concentrations of soil solution in a Norway spruce forest
43	Andrew D. Thomas, <i>Stephen R. Hoon</i> , Patricia E. Linton	Dept. of Environmental & Geographical Sciences, Manchester Metropolitan University, John Dalton Building, Chester Street, Manchester, M1 5GD, UK	Carbon dioxide fluxes in cyanobacterial soil crusts from the Kalahari
3	Pia K. Wüst, Harold L. Drake, <i>Marcus A. Horn</i>	University of Bayreuth, Department of Ecological Microbiology, 95440 Bayreuth, Germany	Structure-Function Relationship of Anaerobic Prokaryotes in an Acidic Fen
19	<i>Ottmar Joos</i> , Alexander Heim, Michael W. I. Schmidt	University of Zuerich, Department of Geography/ Physiogeography/ Soil science, 8057 Zuerich, Switzerland	Using a ¹³ C-tracer method to study the effects of drought on the carbon dynamics of swiss grassland soils
20	<i>Monika Joschko</i> , Jutta Rogasik, Robin Gebbers, Dietmar Barkusky	Leibniz-Zentrum für Agrarlandschaftsforschung, Institut für Landschaftsstoffdynamik, Eberswalder Str. 84, 15374 Müncheberg, Germany	Integrating temporal and spatial variability for understanding soil biota responses to extreme meteorological conditions
21	<i>Hermann Jungkunst</i> , Marc Lamers, Joachim Ingwersen, Thilo Streck, Sabine Fiedler	University of Göttingen, Department of Plant Ecology, 37073 Göttingen, Germany	Impact of the heatwave in 2003 on the methane balance of a spruce forest with large variation in soil drainage
50	<i>Øyvind Kaste</i> , Kari Austnes, Live Semb Vestgarden, Jan Mulder, Arne Stuanes	Norwegian Institute for Water Research (NIVA), Televeien 3, N-4879 Grimstad, Norway	Manipulation of snow regime in small upland catchments to study possible climate change effects on leaching of inorganic N to surface waters
4	<i>Klaus-Holger Knorr</i> , Christian Blodau	University of Bayreuth, Limnological Research Station, Dept. of Hydrology, 95440 Bayreuth, Germany	Effects of drying and rewetting on redox dynamics and C-turnover in a northern temperate fen
26	<i>Jozef Kobza</i>	Soil Science and Conservation Research Institute, Bratislava, Research working-place Banská Bystrica, Slovakia	Comparison of podzolic soils in different geographical and climatical conditions
66	Daniela Degelmann, <i>Steffen Kolb</i> , Harold L. Drake	University of Bayreuth, Dep. Ecological Microbiology, 95440 Bayreuth, Germany	Involvement of Enterobacteriaceae in anaerobic degradation of glucose in aerated forest soils

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51	<i>Galina Koptsik</i> , Nicholas Clarke, Sergey Koptsik, Dan Aamlid	Moscow State University, Soil Science Faculty, 119992 Moscow, Russia	Sources and pools of organic matter in sub-Arctic podzols
67	<i>Sergey Koptsik</i> , Nicholas Clarke	Moscow State University, Physics Faculty, 119992 Moscow, Russia	Origin of uncertainty of soil properties (fluctuation hypothesis) on the example of young soils developed in extreme sub-Arctic conditions
41	<i>Jürgen Kreyling</i> , Carsten Nesshöver, Anke Jentsch, Carl Beierkuhnlein	Disturbance Ecology, Helmholtz Centre for Environmental Research – UFZ, Permoserstr. 15, 04318 Leipzig, Germany	Response of vegetation to the extreme climatic events: an observation
52	<i>Yakov Kuzyakov</i> , Dmitri V. Saponov	University of Bayreuth, Dep. Of Agroecosystem Research, 95440 Bayreuth, Germany	Roots are the main source of freezing-thawing CO ₂ flush from arable and forest soils
22	<i>Norbert Lamersdorf</i>	University of Göttingen, Institute of Soil Science and Forest Nutrition, 37077 Göttingen, Germany	Evaluating the impact of extreme weather conditions on element fluxes within the Solling roof project – effects of naturally occurring and artificially applied summer droughts, rain events and winter extremes
68	<i>Gunnar Lischeid</i>	University of Bayreuth, Ecological Modelling, D-95440 Bayreuth, Germany	Tracing solute turnover processes using non-linear multivariate statistics
53	<i>Valentin Lopes de Gerenyu</i> , Irina Kurganova, Norman Lofthfield, Robert Teepe	Institute of Physicochemical and Biological Problems of Soil Science, 142290, Pushchino, Moscow reg., Russia	Contribution of biological and physicochemical processes to CO ₂ efflux from soils during the freezing-thawing events
23	<i>Beate Michalzik</i> , Anne le Mellec	University of Göttingen, Institute of Geography, Landscape Ecology, 37077 Göttingen, Germany	Dynamic and importance of canopy-derived dissolved and particulate organic matter (DOM & POM) to the C and N budget of two forest ecosystems
24	Janine Franke, <i>Jan Muhr</i> , Werner Borcken	University of Bayreuth, Soil Ecology, 95440 Bayreuth, Germany	Effect of drought intensity and subsequent wetting on CO ₂ production, radiocarbon efflux and inorganic N fluxes of a spruce forest soil
25	<i>Pascal Niklaus</i> , Pete Falloon, Christian Körner	ETH Zürich, Institute of Plant Sciences, 8092 Zürich, Switzerland	Effects of climatic interactions on plant productivity and C storage in temperate grassland exposed to elevated CO ₂
27	<i>Mari Pihlatie</i> , Jukka Pumpanen, Janne Rinne, Hannu Ilvesniemi, Asko Simojoki	University of Helsinki, Department of Physical Sciences, Division of Atmospheric Sciences, 00560 Helsinki, Finland	Estimation of methane oxidation in soil profiles of a boreal forest

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5	<i>Marco Reiche</i> , Kirsten Küsel	Limnology Research Group, Friedrich Schiller University, 07745 Jena, Germany	Stimulation of microbial reduction of Fe(III) in a methane-emitting, slightly acidic fen after a drying and rewetting cycle
7	<i>Achim Reinhardt</i> , <i>Christina Weyer</i> , Gunnar Lischeid, Stefan Peiffer	University of Bayreuth, Department of Hydrology, 95440 Bayreuth, Germany	The Effect of Spatial Distribution of Phosphorous Species at a Wetland Site on Ground Water P-Mobility
30	<i>Michal Remeš</i> , Ladislav Menšík, Pavel Hadaš, Jiří Kulhavý	Institute of Forest Ecology, Mendel University of Agriculture and Forestry, 613 00 Brno, Czech Republic	Concentration of dissolved organic carbon (DOC) in lysimetric waters under the effect of extreme meteorological conditions
31	<i>Hana Santruckova</i> , Karolina Tahovska	University of South Bohemia, 370 05 Ceske Budejovice, Czech Republic	N pools and seasonal fluxes in acidified mountain spruce forest soil
42	Anke Jentsch, Jürgen Kreyling, <i>Nadine Schmid</i> , Carl Beierkuhnlein	University of Bayreuth, Department of Biogeography, 95440 Bayreuth, Germany	A new generation of climate change experiments - events, not trends
17	<i>Andrea Schmitt</i> , Bruno Glaser, Werner Borken, Egbert Matzner	University of Bayreuth, Soil Physics Department, 95440 Bayreuth, Germany	Organic matter dynamics after drought / wet stress on a temperate forest soil
34	<i>Reiner Schroll</i> , Walkiria Levy, Viviane Radl, Bernhard, Ruth, Michael Schmid, Jean Charles Munch	GSF-National Research Center for Environment and Health, Institut of Soil Ecology, 85764 Neuherberg, Germany	Extreme summer conditions caused structural and specific functional changes of microbial communities in soil
35	<i>Christoph Schulz</i> , Stephan Raspe, Wolfgang Falk	Bayerische Landesanstalt für Wald und Forstwirtschaft (Bavarian Forest Institute), Am Hochanger 11, 85354 Freising, Germany	Patterns of soil solution reaction to 2003 drought at 22 Bavarian level-II plots
36	<i>Merete Bang Selsted</i> , Per Ambus	Risø National Laboratory, DK-4000 Roskilde, Denmark	Ecosystem-atmosphere exchange of carbon in a heath land under future climatic conditions
6	<i>Anke Sieler</i> , Marco Reiche, Kirsten Küsel	Limnology Research Group, Friedrich Schiller University, 07745 Jena, Germany	Exoenzymatic activities during a drought and rewetting experiment in a slightly acidic fen
54	<i>Raimo Sutinen</i> , Pekka Hänninen, Tapani Repo, Ari Venäläinen	Geological Survey of Finland, P.O.Box, FIN-96101 Rovaniemi, Finland	Root-zone soil water content and temperature at snow covered and snow-free sites in southern boreal Finland

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55	<i>Raimo Sutinen, Pekka Hänninen, Andrea Vajda, Marja-Lisa Sutinen</i>	Geological Survey of Finland, P.O.Box, FIN-96101 Rovaniemi, Finland	Inter-annual variation in root-soil water content and temperature in Finnish Lapland
32	<i>Karolina Tahovska, Hana Santruckova</i>	University of South Bohemia, 370 05 Ceske Budejovice, Czech Republic	Nitrogen availability and fluxes in acidified mountain forest soils
56	<i>Jenni Tirkkonen, Marja Maljanen, Anna-Riikka Kohonen, Heini Andersen, Perttu Virkajärvi</i>	University of Kuopio, Department of Environmental Sciences, 70211 Kuopio, Finland	Effects of snow cover manipulation on N ₂ O and NO emissions during winter in boreal agricultural soils
57	<i>Eva Uhlírova, Hana Santruckova</i>	University of South Bohemia, 370 05 Ceske Budejovice, Czech Republic	Quality and potential biodegradability of soil organic matter preserved in permafrost of Siberian tussock tundra
58	<i>Live Semb Vestgarden, Kari Austnes, Jan Mulder, Arne, O. Stuanes</i>	Norwegian University of Life Sciences, Dept. of Plant and Environmental Sciences, P.O.Box 5003, N-1432 Ås, Norway	Effects of freezing-thawing on carbon and nitrogen in boreal heathland soils – a laboratory experiment
8	<i>Christina Weyer, Gunnar Lischeid, Stefan Peiffer</i>	University of Bayreuth, Chair of Ecological Modelling, 95440 Bayreuth, Germany	Linkage between surface water and groundwater: The role of strong precipitation events for solute export from a wetland site
38	<i>Richard Wright</i>	Norwegian Institute for Water Research, 0344 Oslo, Norway	The decreasing importance of acidification episodes with recovery from acidification: an analysis of the 30-year record from Birkenes, Norway
39	<i>Artem Yakimov</i>	Earth Cryosphere Institute, Siberian Branch of Russian Academy of Sciences, 625029, Russia	Interred soil as an indicator of environmental changes in the history
75	<i>Tobias Zuber, Christina Bogner, Werner Borken, Bernd Huwe</i>	University of Bayreuth, Soil Ecology, 95440 Bayreuth, Germany	Modelling of soil water budgets as affected by drying/rewetting and freezing/thawing events in a spruce forest