**Time schedule**

**Tuesday, 6 March 2018**

18.00 – 22.00h  **Icebreaker** (Registration)

**Wednesday, 7 March 2018**

8.30 – 9.00 h  **Registration**

9.00 – 9.30 h  **Opening** of the workshop

*Welcome by Vice-Rector for Research and Young Academics – Prof. Dr. Erich Schröger*

*Welcome by Dean (Faculty of Physics and Earth Sciences) – Prof. Dr. Jürgen Haase*

*Welcome by MULTIPP organizers*

Prof. Dr. Christoph Zielhofer, Prof. Dr. Michael Vohland, Dr. Mathias Ulrich

9.30 – 11.00 h  **Oral Session 1**: (Chair: JAN ESPER, Mainz; DOMINIK FAUST, Dresden)

*Holocene time-scale – Reconstruction of Mediterranean climate and environmental changes*

9.30 – 9.50 h  **CHRISTOPH ZIELHOFER** (Leipzig)

“MULTIPP project – a Mediterranean and global perspective”

9.50 – 10.10 h  **ABDELFETTAH BENKADDOUR** (Marrakech), **HENRY LAMB**, **MALANY LENG**, **ALI RHOUJJATI**, **SAID ZEROUAL**

“Palaeolimnological and palaeohydrological reconstruction during the last 4000 yrs in Tislit Lake system, High Atlas, Morocco”

10.10 – 10.30 h  **WILLIAM FLETCHER** (Manchester)

“Quaternary palaeoecology in Morocco: recent advances and future perspectives”

10.30 – 10.45 h  **DANIEL WOLF** (Dresden), **DOMINIK FAUST**

“Spatial scales in fluvial archive research - Challenges and opportunities”

10.45 – 11.00 h  **STEFFEN MISCHKE** (Reykjavik)

“Analyses of stable oxygen and carbon isotopes of biotic and abiotic carbonates in lake sediments”

11.00 – 11.30 h  **Coffee break**
11.30 – 13.00 h Discussion sessions

**Working Group 3** - Recent Past (Last 100 years) – Human Environment Interaction
(Chair: N.N. / Minutes: DAVID KREUER, Leipzig)

**Working Group 5** - Rapid Climate Change during the Holocene
(Chair: CHRISTOPH ZIELHOFER, Leipzig / Minutes: HANS VON SUCHODOLETZ, Leipzig)

13.00 – 14.00 h Lunch break

14.00 – 15.30 h

**Oral Session 2** (Chair: ADELFEETTAH BENKADDOUR, Marrakech)

*Holocene time-scale – Reconstruction of Mediterranean climate and environmental change*

14.00 – 14.15 h JAN ESPER (Mainz)
„Tree-ring contribution to MULTIPP”

14.15 – 14.30 h ANDREAS VÖTT (Mainz), PETER FISCHER, HANNA HADLER, TIMO WILLERSHÄUSER
“Recognizing and analyzing Holocene extreme events and their triggers along a transect across the eastern Mediterranean – MEDXTREME”

14.30 – 14.45 h HANS VON SUCHODOLETZ (Leipzig), CHRISTOPH ZIELHOFER, SILVAN HOTH, JOSEFINE UMLAUFT, BIRGIT SCHNEIDER, CHRISTIAN ZEEDEN, LASHA SUKHISHVILI, DOMINIK FAUST
“Flooding research: The past is the key to the future - an example from the Greater Caucasus”

14.45 – 15.00 h MICHAEL DEININGER (Mainz), ALEXANDER BUDSKY, REGINA MERTZ-KRAUS, CHRISTOPH SPÖTL, LUIS GIBERT, KLAUS PETER JOCHUM, JASPER WASSENBURG
“Flowstones from Cueva Victoria, south-east Spain – a sensitive archive of past climate change during the last 450 ka in one of the driest regions of Spain”

15.00 – 15.15 h DOMINIK FAUST (Dresden), JULIE DABKOWSKI, DANIEL WOLF
“SMALL but NICE – The Galera-System in E-Andalucia”

15.15 – 15.30 h DOMINIK FAUST (Dresden), JULIE DABKOWSKI, DANIEL WOLF
“Coherency of Holocene European speleothem δ18O records: implications for the Mediterranean hydroclimate”

15.30 – 16.00 h Coffee break

16.00 – 17.30 h Discussion sessions

**Working Group 2** - Recent Past – Dust Cycles and Models
(Chair: KERSTIN SCHEPANSKI, Leipzig / Minutes: STEFANIE FEUERSTEIN, Leipzig)

**Working Group 9** - Extended Steering Committee
(Chair: STEFFEN MISCHKE, Reykjavík and WILLIAM FLETCHER, Manchester / Minutes: MATHIAS ULRICH and HANS VON SUCHODOLETZ, Leipzig)

**Working Group 6** - Young Scientist
(Chair: DAVID KREUER, Leipzig / Minutes: JULIANE STEIN and MARKUS L. FISCHER, Leipzig)

17.30 – 19.00 h Poster session (Chair: JAN ESPER, Mainz; DANIEL WOLF, Dresden)

20.00 h Joint dinner
Thursday, 8 March 2018

9.00 – 10.30 h  
**Oral session 3** (Chair: DENIS SCHOLZ, Mainz)  
*Methods, methodological approaches and modelling (past – present- future)*

9.00 – 9.15 h  
*BIRGIT MÜLLER (Leipzig), GUNNAR DRESSLER, DAVID KREUER, KARIN FRANK*  
“Analysis of land use change by using social-ecological modelling”

9.15 – 9.30 h  
*KERSTIN SCHEPANSKI (Leipzig)*  
“The north African dust life-cycle and its controlling factors”

9.30 – 9.45 h  
*STEFANIE FEUERSTEIN (Leipzig), KERSTIN SCHEPANSKI*  
“Characterization of alluvial dust sources and their temporal development for model applications”

9.45 – 10.00 h  
*BERND SCHÖNE (Mainz), THE INCREMENTS TEAM*  
“Mollusk sclerochronology contribution of MULTIPP – Scope for high-resolution paleoclimate and archaeological research in the Mediterranean”

10.00 – 10.15 h  
*PETER DIETRICH (Leipzig), ULRIKE WERBAN, JÖRG HAUSMANN, JOHANNES VÖLLMER, CHRISTOPH ZIELHOFER, THOMAS VIEKEM*  
“Direct Push – New Opportunities for the investigation of soils and sediments”

10.15 – 10.30 h  
*ULRIKE WERBAN (Leipzig), MARCO PÖHLE, HANS VON SUCHODELETZ, THORSTEN BEHRENS, PETER DIETRICH*  
“Pedogeophysics – Challenges in near surface geophysics for the investigation of soils”

10.30 – 11.00 h  
**Coffee break**

11.00 – 12.30 h  
**Discussion sessions**

*Working Group 1* - (Paleo-)Climatic Models  
(Chair: DENIS SCHOLZ, Mainz / Minutes: WILLIAM FLETCHER, Manchester)

*Working Group 7* - Paleontology  
(Chair: BERND SCHÖNE, Mainz / Minutes: ANNE KÖHLER, Leipzig)

*Working Group 8* - Geoarchaeology  
(Chair: ANDREAS VÖTT, Mainz / Minutes: JOHANNES SCHMIDT and JOHANNES VÖLLMER, Leipzig)

12.30 – 13.45 h  
**Lunch break**

13.45 – 15.30 h  
**Oral session 4** (Chair: MATHIAS ULRICH, Leipzig)  
*Sub-recent to modern time-scale - Man and environment interaction*  
*Challenges in bridging chronological and spatial scales*

13.45 – 14.00 h  
*VERONIKA CUMMINGS (Mainz)*  
“Water as a political and social capital in Northern Africa”

14.00 – 14.15 h  
*SARAH RUTH SIPPOL (Leipzig) brief talk*  
“Intensive agriculture and rural livelihoods in Morocco”

14.15 – 14.30 h  
*DAVID KREUER (Leipzig)*  
“Land use and models: a preliminary inventory of knowledge about the study area”

14.30 – 14.45 h  
*KAI WELLBRÖCK (Lübeck), MATTHIAS GROOTKER*  
“Archaeohydrology - The interrelation of water management, hydrology and landscape formation in arid to semi-arid environment”

14.45 – 15.00 h  
*MARTIN BAUCH (Leipzig)*  
“Societal reactions to erosion, drought and extreme precipitation from Central Italy in the Late Middle Ages”
15.00 – 15.15 h JÖRG GERTEL (Leipzig)
“Shifting Insecurities: Reconstructing Livelihoods in Rural Morocco”

15.15 – 15.30 h MICHAEL VOHLAND (Leipzig), CHRISTOPHER HUTENGS
“How to bridge spatial scales with optical remote sensing? Downscaling land surface temperatures with random forest regression”

15.30 – 16.00 h Coffee break

16.00 – 17.30 h Discussion sessions

Working Group 4 – Recent Past (Last 1000 years) - Human Environment Interaction
(Chair: PETER FRENZEL, Jena / Minutes: JAN AHLRICHS, Leipzig)

Working Group 9 - Extended Steering Committee
(Chair: STEFFEN MISCHKE, Reykjavík and WILLIAM FLETCHER, Manchester / Minutes: MATHIAS ULRICH and HANS VON SUCHODOLETZ, Leipzig)

Working Group 6 - Young Scientist
(Chair: DAVID KREUER, Leipzig / Minutes: JULIANE STEIN and MARKUS L. FISCHER, Leipzig)

17.30 – 19.00 h Working group reports and open discussion (Chair: Steering Committee and Advisory Board)

20.00 h Joint dinner

Friday, 9 March 2018

9.00 – 10.30 h Oral Session 5 (Chair: DOMINIK FAUST, Dresden; MARTIN BAUCH, Leipzig)
Anthropogenic time-scale - Mediterranean ecosystems and landscapes

9.00 – 9.15 h ABDESLAM MIKAD (Rabat), FADOUA NEKKAL
"Cultures matérielles holocènes du Rif oriental et context environnemental“

9.15 – 9.30 h LUKAS WERTHER (Jena, London), ABDESLAM MIKAD, FEDOUA NEKKAL, CHRISTOPH ZIELHOFER
„Lakesides in a dryland environment: The archaeological record around Lake Sidi Ali from the palaeolithic to the modern period (Middle Atlas, Morocco)“

9.30 – 9.45 h JAN AHLRICHS (Leipzig), HANS VON SUCHODOLETZ, ULRICH VEIT, LUKAS WERTHER, PETER ETTEL, PIERRE FÜTTERER, ULRIKE WEBAN, CHRISTOPH ZIELHOFER
„Assessing human impact on sediment dynamics in river catchments using an archaeological, historical and geoarchaeological multi-scale approach“

9.45 – 10.00 h MOHAMED MAHDI (Meknes)
„Eléments d’histoire du pastoralisme dans le Moyen-Atlas“

10.00 – 10.15 h JAGO JONATHAN BIRK (Mainz), SABINE FIEDLER, BJÖRN BUGGLE, GÜNThER SCHÖRNER, NORA VOß, HUSSEIN AL-SABABA, SUFYAN AL KARAIMEH, BERNHARD LUCKE
„Land-use history in northern Jordan analysed with biomarkers“

10.15 – 10.30 h ELISABETH DIETZE (Potsdam)
„Fire, water, erosion - driven by climate and human, mediated by vegetation“

10.30 – 11.15 h Coffee break

11.15 – 13.00 h
Open discussion and planning of future activities – Closing
(Chair: Steering Committee and Advisory Board)
Mediterranean Desert Margin and Drylands Workshop
(MULTIPP)
6 - 9 March 2018, Leipzig, Germany

Poster Presentation by Author and Title

1. Markus Lothar Fischer (Leipzig), Felix Bachofer, Christoph Zielhofer, Annett Junginger
Wet feet or walking on sunshine? A hydro-modelling-approach of the East-African rift-basin and paleo-lake Chew Bahir (Ethiopia) to estimate paleo-precipitation and ecosystem dynamics

2. Kathryn Fitzsimmons (Mainz) and the Research Group for Terrestrial Palaeoclimates
Human-environmental interaction in the Willandra Lakes region, semi-arid southeastern Australia

3. Peter Frenzel (Jena), Anna Pint, Eilyn Becher, Judith Ewald, Birgit Plessen, Max Engel
Marginal marine calcareous fossils as proxies in athalassic waters of arid regions: The oasis of Tayma, Saudi Arabia

4. Felix Hagemeyer (Leipzig)
Philistine land and water management in the Late Bronze Age and Iron Age: Tel Ashdod and Ashdod-Yam as a case study

5. Annett Junginger (Tübingen), Elena Robakiewicz, Christoph Zielhofer
Diatoms in modern swamps, springs and lakes of the Sidi Ali catchment (Morocco)

6. Anne Köhler (Leipzig), Steffen Mischke, Christoph Zielhofer
Millennial shifts in Western Mediterranean hydroclimate

7. Victoria Krippner (Leipzig), Steffen Mischke, Annett Junginger, Abdelslam Mikdad, Christoph Zielhofer
Analysis of recent and Holocene ostracods from Lake Sidi Ali (Middle Atlas, Morocco)

8. Maximillian Lange (Leipzig), Daniel Doktor
Extraction of phenological metrics from EO satellite data and their potential for climate and land-use change depiction

9. Renate Matzke-Karasz (Munich)
Previous research on Ostracoda (Crustacea) in Circum-Mediterranean Northern Africa

10. Burghard Meyer (Leipzig), Gábor Mezősi, Ferenc Kovács
Landscape degradation at different spatial scales caused by aridification

11. Fadoua Nekkal (Meknes)
Préservation, mise en valeur et valorisation des sites archéologiques du Rif oriental (Maroc)

12. Johannes Quaas (Leipzig), Marc Salzmann
Precipitation- and surface radiation changes and the role of anthropogenic emissions
13. MARKUS REUTER (Leipzig), MATHIAS HARZHAUSER, WERNER E. PILLER
Coastal landscape evolution in NW Sri Lanka linked to the late Quaternary monsoon variations

14. ALI RHOUJJATI (Marrakech), ABDELFATTAH BENKADDOUR, MAJDA NOURELBIAIT, RACHID CHEDDADI
Past climate change inferred from lacustrine sedimentary sequence, Middle Atlas, Morocco

15. CHRISTOPHER-B. RÖTTIG (Dresden), THOMAS KOLB, DANIEL WOLF, LUDWIG ZÖLLER, DOMINIK FAUST
From archive to successive processes: Aeolianite-paleosurface-sequences in northern Fuerteventura

16. FLORIAN SCHIMMER (Mainz)
Agriculture in the pre-desert of Roman Tripolitania (1st c. BC – 5th c. AD)

17. JOHANNES SCHMIDT (Leipzig), LUKAS WERTHER, CHRISTOPH ZIELHOFER
Premodern Digital Terrain Models – Modelling the human impact

18. BIRGIT SCHNEIDER (Leipzig), HANS VON SUCHODOLETZ, CHRISTOPH ZIELHOFER
Applications and perspectives of XRF-based element analyses

19. JULIANE STEIN (Leipzig)
Late Bronze Age agriculture at the margins of the Negev desert

20. MATHIAS ULRICHT (Leipzig), CHRISTOPH ZIELHOFER, MICHAEL VOHLAND, HANS VON SUCHODOLETZ
Combining multi-temporal remote sensing and paleoenvironmental studies - Potential and perspectives of an integrated approach

21. HANS VON SUCHODOLETZ (Leipzig), MARCEL BIEDTNER, PETER KÜHN, BIRGIT SCHNEIDER, CHRISTOPH ZIELHOFER, ROLAND ZECH
Assessing new ways to reconstruct paleovegetation patterns: The potential of leaf wax-based biomarker analyses in fluvial sediment-paleosol sequences

22. MICHAEL VOHLAND (Leipzig), CHRISTOPHER HUTENG, FELIX OERTEl, MICHAEL SEIDEl, BERNHARD LUDWIG
Quantification of soil properties with soil spectroscopy (vis-NIR, MIR) and hyperspectral imaging

23. JOHANNES VÖLLMER (Leipzig), CHRISTOPF ZIELHOFER, PETER DIETRICH, ULRIKE WERBAN, STEFANIE BERG, LUKAS WERTHER
A new geoarchaeological approach for site investigation with Direct-push-Technology

24. CLAUDIA WROZYNA (Graz), THOMAS A. NEUBAUER, JULIANE MEYER, MARIA INES F. RAMOS, WERNER E. PILLER
Impact of climate and hydrochemistry on shape variation – a case study on Neotropical cytheroidean Ostracoda

25. CHRISTOPF ZIELHOFER (Leipzig), BERNHARD WENINGER, LUKAS WERTHER, CLEMENS PASDA, WILLIAM FLETCHER, MATHIAS ULRICHT
Early Holocene abrupt hydro-climatic shifts and human response at the North African desert margin
Overview map of most important workshop locations