

PROGRAM

Monday, 26.3.2012

9.00 – ca. 18.00	WORKSHOP “Deformation of polymineralic rocks in nature and experiment” convened by Marco Herwegh, Rüdiger Kilian and Erik Rybacki
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Tuesday, 27.3.2012

9.00 – ca. 18.00	WORKSHOP “Significance of long-term deformation and permeability of rock salt and clay for storage and waste disposal” convened by Bernd Leiss, Janos Urai and Gernold Zulauf
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9.00 – ca. 18.00	WORKSHOP “Thermodynamic calculations with the Theriak/Domino software package” convened by Thorsten Nagel
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Wednesday, 28.3.2012

9.00	SALUTATION, OPENING OF THE SYMPOSIUM
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9.20	Impact cratering on Earth and on Mars: defining the impact trajectories by structural analysis Thomas Kenkmann
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9.50	The MEMIN research unit: hypervelocity impacts into geological materials Michael H. Poelchau, Thomas Kenkmann, Klaus Thoma, Alex Deutsch, Tobias Hoerth and Frank Schäfer
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10.10	Porosity Reduction in the Sub-Surface of Experimentally Produced Impact Craters in Sandstone Elmar Buhl, Michael H. Poelchau, Thomas Kenkmann, Georg Dresen and Klaus Thoma
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10.30	BREAK and POSTERS
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11.00	Thermomechanical interaction of stoped blocks with magma – the role of volatile exsolution Steffi Burchardt, Valentin R. Troll, Harro Schmeling, Hemin Koyi and Lara Blythe
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11.20	Magnetic fabric studies in flood basalts – how to get information on magma flow direction Stefan Schöbel and Helga de Wall
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11.40	New Approaches in Rock Deformation and Recrystallisation Analysis at POWTEX Neutron Diffractometer, FRM II Germany Jens M. Walter, Michael Stipp, Klaus Ullemeyer, Helmut Klein, Bernd Leiss, Bent T. Hansen and Werner F. Kuhs
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12.00	Deformation mechanisms active during catastrophic rock failure: preliminary results. Trullenque, G., Kenkmann, T. and Stein E.
12.20	LUNCH BREAK
13.00 – 15.20	POSTER SESSION
15.20	Polyphase deformation in NW Namibia – tools to reconstruct regional tectonics Cees Passchier, Xavier Maeder and Rudolph Trouw
15.50	Dislocation creep of dry quartz Rüdiger Kilian, Renée Heilbronner, Holger Stünitz, Andreas Kronenberg and Caleb Holyoke
16.10	Mechanical behaviour of anhydrite rocks: results of field investigations and mineralogical-geochemical studies Michael Mertineit, Joachim Behlau, Jörg Hammer, Michael Schramm and Gernold Zulauf
16.30	Experimental boudinage of anhydrite in rock-salt matrix: The impact of bulk finite strain geometry Gernold Zulauf, Janet Zulauf, Michael Mertineit and Jörg Hammer
16.50	Metasomatic fault weakening at the Moresby Seamount detachment in the western Woodlark Basin (offshore Papua New Guinea) Romed Speckbacher, Jan H. Behrmann, Michael Stipp, Thorsten Nagel, Julia Mahlke and Colin W. Devey
17.20	ICE BREAKER “MS Stadt Kiel”
20.00	Pier GEOMAR east shore
20.30	Pier GEOMAR west shore
Thursday, 29.3.2012	
9.00	Depth-dependent extension, two-stage breakup and depleted lithospheric counterflow at rifted margins Ritske S. Huismans
9.30	New 3D seismic data and high-resolution bathymetry data give insight into active deformation in the Gulf of Cadiz Gareth J. Crutchley, Christian Berndt, Dirk Klaeschen and Doug G. Masson
9.50	Erkundungsmaßnahmen zum tiefengeothermischen Potential der Leinetalgrabenstruktur Bernd Leiss, David C. Tanner, Axel Vollbrecht, Till Heinrichs, Gernot Arp und GGG
10.10	Scales of deformation within a compressional flower structure modelled by varying the amount of fault-zone complexity David. C. Tanner, Steffen Prüfer, Dirk Kuhn and Charlotte M. Krawczyk

10.30	BREAK and POSTERS
11.00	The Eastern Alps-Western Alps boundary: crustal scale sections from western Austria Bernhard Fügenschuh, Hugo Ortner, Hannah Pomella, Marcel Schulz and Michael Zerlauth
11.20	The Giudicarie Fault System (Alps, Northern Italy): Evolution of a major Alpine fault system Hannah Pomella, Michael Stipp and Bernhard Fügenschuh
11.40	HP-metamorphism in the Adula Nappe, Central Alps Sascha Sandmann and Thorsten J. Nagel
12.00	Exhumation of fault blocks in the internal Sesia-Lanzo Zone and the Ivrea-Verbano Zone (Biella, Italy): Insights from FT-data, U/Pb ages and structural data Alfons Berger, Ivan Mercolli, Bernhard Fügenschuh and Notburga Kapferer
12.20	LUNCH BREAK
13.00 – 15.20	POSTER SESSION
15.20	Tectonic enigmas revealed from petrological and geochemical studies of the Lesser- and Higher Himalaya in Sikkim, India Sumit Chakraborty
15.50	Exhumation of subducted oceanic lithosphere at the South American convergent margin (Raspas Complex, Ecuador) Ralf Halama, Petra Herms, Timm John, Volker Schenk, Dieter Garbe-Schönberg and Folkmar Hauff
16.10	Control of reaction kinetics on mantle serpentization and double Benioff zones Karthik Iyer, Lars H. Rüpke, Ingo Grevemeyer and Jason Phipps Morgan
16.30	What were the protoliths of the Middle Allochthon? Answers from zircon dating and geochemistry of metamorphosed sedimentary and magmatic rocks of the Ammarnäs Complex, central Scandinavian Caledonides Jens C. Grimmer, Fredrik A. Hellström, Axel Gerdes and Reinhard O. Greiling
16.50	BREAK and POSTERS
17.20	Archean UHT metamorphism and Paleoproterozoic reworking at Uweinat in the East Sahara Ghost Craton Shreya Karmakar and Volker Schenk
17.40	The granulite facies Ongole domain of the Eastern Ghats Belt, India – A Proterozoic island arc? Tapabrato Sarkar and Volker Schenk
18.00	The role of extraction and out-of-sequence thrusting of nappes for the exhumation of (ultra)high-pressure rocks – A case study from Lago di Cignana (Western Alps, Italy) Frederik Kirst, Nikolaus Froitzheim, Thorsten Nagel, Bernd Leiss and Jan Pleuger

18.20	A numerical study of conditions during thin-skinned thrust initiation and propagation: the example of the Jura mountains David Hindle and Melanie Lohrmann-Bromm
19.30	SYMPOSIUM DINNER
Friday, 30.3.2012	
9.00	Numerical Modelling of Subduction and Collision Processes Taras V. Gerya
9.30	Intra-oceanic subduction initiation caused by shear heating: What are the odds? Marcel Thielmann and Boris J.P. Kaus
9.50	Bending-related faulting and mantle serpentinization at deep-sea trenches Ingo Grevemeyer
10.10	Two plates many subduction zones: The Variscan orogeny reconsidered Uwe Kroner and Rolf L. Romer
10.30	Extremely rapid exhumation from eclogite-facies conditions to the surface in the Rhodope mountains, Bulgaria Thorsten Nagel, Nikolaus Froitzheim, Silke Jahn-Awe, Maria Kirchenbaur and Neven Georgiev
10.50	BREAK and POSTERS
11.20	Cosmogenic nuclides: applications in tectonic geomorphology Ralf Hetzel
11.50	Quantifying vertical surface motion on different time-scales, example of Crete, Greece Stefanie Rieger, Nico Adam and Anke M. Friedrich
12.10	Characterization of deeper crustal pseudotachylytes Uwe Altenberger, Giacomo Prosser, Antonella Grande and Christina Günter
12.30	LUNCH BREAK
13.30	On the scale-invariance of fractures Michael Krumbholz; Steffi Burchardt; David C. Tanner; Christoph Hieronymus and Hemin Koyi
13.50	Correlation of joints and fracture cements in Cretaceous carbonate rocks, Mt. Chianello, Italy Francesco Dati, Stefano Mazzoli, Stefano Vitale, Sofie Nollet and Christoph Hilgers
14.10	Evidence for coseismic rupture in a low-strain intraplate rift (Lower Rhine Embayment, central Europe) Simon Kübler, Anke M. Friedrich and Manfred R. Strecker

14.30	PLENARY DISCUSSION
	POSTER PRIZE VOTE FOR THE NEXT TSK LOCATION
ca. 15.30	ENDING OF THE SYMPOSIUM
ca. 15.30	Departure for FIELD TRIP “Salt tectonics and Harz mountains’ geology” Guides: C.H. Friedel, H. Blanke, H.J. Franzke, L. Stottmeister and D.C. Tanner
ca. 19.00	Bad Helmstedt, overnight stay
Saturday, 31.3.2012	
8.00	Salt tectonics Salt mine Morsleben, Deutsche Gesellschaft zum Bau und Betrieb von Endlagern (DBE)
	Effects of salt tectonics on cover sediments Quartz sand mine Walbeck
	Harz northern margin fault Teufelsbach, Blankenburg
ca. 18.00	Blankenburg, overnight stay
Sunday, 1.4.2012	
8.00	Calcmylonites in Devonian reef limestones Elbingerode, Rübeland
	Crystalline basement units, Eckergneiss (depending on weather conditions)
	Deformation structures in the Culm Fold zone Triangle zone/Okertal; Kellwassertal
ca. 21.00	Kiel, GEOMAR

POSTER CONTRIBUTIONS

Index	Title and authors
4.1	Measuring Structural Data with Smartphone Devices Peter Appel
5.1	Brittle deformation during exhumation of eclogites and blueschist of the Bantimala Complex, Sulawesi: evidence for intra-slab shearing Rauno Baese and Volker Schenk
2.1	Structural investigations of the spreading system north of the Rodriguez Triple Junction (Indian Ocean) Carolin Bartsch, Udo Barckhausen, Thomas Kuhn and Ulrich Schwarz-Schampera
1.1	Large scale 3D geometry of deformation structures in the Aar massif and overlying Helvetic nappes (Central Alps, Switzerland) – A combined remote sensing and field work approach Roland Baumberger, Philip Wehrens and Marco Herwegh
1.2	Strain in the Adula Nappe, Pennine Alps, Switzerland Jan H. Behrmann, Robert Keizer, Marcel Mizera and Peer Rahlf
3.1	Evidence for Mesoproterozoic UHT metamorphism and two metamorphic events in the central Namaqualand Metamorphic Complex (Kakamas Terrane), South Africa Julia Bial, Volker Schenk, Steffen Büttner and Peter Appel
4.2	The role of stress on chemical compaction of illite shale: An experimental study Rolf H. C. Bruijn, Bjarne S. G. Almqvist, Phil M. Benson and Ann M. Hirt
4.3	AMS fabrics in a Permian laccolith from Tabarz (Thuringia, Germany) – a reconnaissance study Carlo Dietl
1.3	Wavelength selection in 3D multilayer detachment folding Naiara Fernandez and Boris J.P. Kaus
3.2	The Eckergneiss complex – state of the art and open questions Carl-Heinz Friedel and Kai Fischer
1.4	The Vardar Ocean suture in the Rhodopes and the maximum-allochthony hypothesis for the Hellenides Nikolaus Froitzheim, Silke Jahn-Awe, Dirk Frei, Ashlea Wainwright, Roland Maas, Neven Georgiev, Thorsten J. Nagel and Jan Pleuger
5.2	Segmentation of the 1960 and 2010 Chilean earthquakes controlled by a giant slope failure Jacob Geersen, David Völker, Jan Behrmann, Dirk Kläschen, Wilhelm Weinrebe, Sebastian Krastel and Christian Reichert
1.5	A Silurian top-to-NW ductile shear zone in the Seve Nappe Complex (central Scandinavian Caledonides, Sweden): The top of a Scandian palaeo-extrusion wedge? Jens C. Grimmer, Johannes Glodny, Kirsten Drüppel, Agnes Kontny and Reinhard O. Greiling

2.2	Strukturgeologisches 3D-Modell des östlichen Leinetalgrabenstörungssystems bei Bovenden/Südniedersachsen Johannes Großmann, Bernd Leiss und David C. Tanner
6.1	The structure and evolution of magmatic complexes in fold-and-thrust belts – a case study of Cerro Negro, Neuquén Province, Argentina D. Gürer, O. Galland, H. A. Leanza, C. Sassier and P. R. Cobbold
1.6	How does the Okhotsk plate deform? Insights from 3d numerical modelling David Hindle
5.3	New Approach to Detect Possible Quaternary Tectonic Activity in the Alpine Foreland Basin, Southern Germany Markus Hoffmann and Anke M. Friedrich
4.4	Mineralogisch-geochemische Charakterisierung des Staßfurt-Hauptsalzes (Knäuelsalz bis Kristallbrockensalz) im Salzstock Gorleben Hjördis Holler, Michael Schramm, Michael Mertineit und Jörg Hammer
2.3	Influence of viscous channel thickness on the development of overlying brittle deformation patterns under extension: new insights from analogue modeling Ruth Keppler, Filipe Rosas and Thorsten Nagel
2.4	The effect of preexisting joints on normal fault evolution – Insights from field work and analogue modeling Michael Kettermann, Heijn van Gent, Christoph Grützner and Janos Urai
5.4	Recent stress directions in basement rocks of southern Sweden deduced from open microcracks – first results Michael Krumbholz and Axel Vollbrecht
4.5	Texture analysis of mylonitic marbles from the Rhodope Metamorphic Core Complex (Greece) – A preliminary study in view of its kinematic evolution Rebecca Kühn, Bernd Leiss and Markos Tranos
3.3	Alpine HP-metamorphism in orthogneisses from the Adula nappe (Lepontine Alps)? Robert Kurzawski, Thorsten Nagel, Sascha Sandmann and Jacek Kossak
5.5	Joint patterns and vein formation in a fractured carbonate reservoir analogue, Eifel, Germany Dennis Laux, Tomas Fernandez-Steeger, Philippe Muchez and Christoph Hilgers
4.6	Numerical investigation of stresses in sinking carbonate stringer in salt body Shiyuan Li, Steffen Abe and Janos Urai
3.4	(U)HP metamorphism in the Makbal Complex, Tianshan Mountains (Kazakhstan & Kyrgyzstan): Different P-T evolutions of intimately interlayered ultra high- and high-pressure rocks Melanie Meyer and Reiner Klemd
3.5	Isobaric evolution of staurolite-andalusite-cordierite-sillimanite schist in the Central Pyrenees – Early Variscan metamorphism of the Aston-Hospitalet domes Jochen E. Mezger and Jean-Luc R��gnier

2.5	Rifted structures of conjugated margins in the Tyrrhenian Sea Moeller, S., Berndt, C., Grevemeyer, I., Klaeschen, D. Ranero, C.R., Sallares, V. and Zittelini, N.
4.7	Texturanalyse des Steinsalzgefügetyps "Kristallbrocken" Hans-Heinrich Müller, Bernd Leiss und Michael Schramm
3.6	A slap for eoarchean slab melting Thorsten J. Nagel, J. Elis Hoffmann and Carsten Münker
4.8	Mikrostrukturelle Charakterisierung von Karbonatgängen im Unteren Muschelkalk des Leinetalgrabens – erste Ergebnisse Christian Nikolajew, Axel Vollbrecht, Bernd Leiss und Alfons v.d. Kerkhof
4.9	Spatial distribution of quartz recrystallization microstructures across the Aar massif Max Peters and Marco Herwegh
5.6	Migration pathways in Upper Carboniferous unconventional reservoirs, Southern Ruhr Area, North Rhine-Westphalia, Germany Stefan Pietralla, Martin Salamon and Christoph Hilgers
3.7	Disequilibrium textures in lower crustal rocks: Magmatic fabrics in the Eastern Segment, SW Sweden Bettina Richter and Uwe Altenberger
4.10	Interpretative model of shearband boudins internal evolution in HT ductile shear zones Benedito C. Rodrigues, Mark Peterzell, António Moura, Martin Schwindinger and Jorge Pamplona
4.11	On the distribution and morphology of grain boundary fluids in natural rock salt Joyce Schmatz, Marc Sadler, Guillaume Desbois and Janos L.Urai
6.2	Investigation of Nb-Ta-enriched Pegmatites in the Eastern Alps Tobias Schneider, Jürgen Konzett, Bernhard Fügenschuh and Frank Melcher
4.12	Ultrasonic wave velocities during experimental deformation of silty clays from the Nankai accretionary prism Kai Schumann, Michael Stipp, Dirk Klaeschen and Jan Behrmann
4.13	Synchrotron texture analysis of naturally and experimentally deformed water-rich sediments from the Nankai Trough offshore Japan Kai Schumann, Michael Stipp, Bernd Leiss and Jan H. Behrmann
4.16	Deformation fabrics of quartz- and calcite-rich mylonites from the Moresby Seamount detachment, Woodlark Basin (offshore Papua New Guinea) Romed Speckbacher, Michael Stipp, Florian Heidelbach and Jan H. Behrmann
4.14	Triaxial deformation experiments indicate strong sediments at the deformation front, and weak sediments at the rear of the Nankai accretionary prism Michael Stipp, Malte Rolfs, Yujin Kitamura and Jan H. Behrmann
4.15	Experimental deformation of partially molten aplite in simple shear Michael Stipp, Jan Tullis and Alfons Berger

5.7	Fluid-enabled inversion of half-grabens in unconsolidated Upper Pleistocene sands David C. Tanner, Christian Brandes and Jutta Winsemann
4.17	Microfabrics and deformation mechanisms of hydrocarbon-bearing Gorleben rock salt Nicolas Thiemeyer, Maximilian Pusch, Jörg Hammer and Gernold Zulauf
4.18	Evaluation of Crystallographic Preferred Orientations applying whole pattern deconvolution method Roman Vasin and Klaus Ullemeyer
1.7	Heat flow in the Southern Chile Forearc controlled by large-scale tectonic processes Lucia Villar-Muñoz, Juan Diaz-Naveas and Jan H. Behrmann
1.8	Terrane accretion at active continental margins: Numerical Modelling Katharina Vogt and Taras V. Gerya
5.8	Tectonic control on submarine mass wasting off Central Chile David Völker and Jacob Geersen
1.9	Structural Evolution in the Aar Massif (Central Alps): First attempts of linking the micron- to the kilometer-scale Philip Wehrens, Roland Baumberger and Marco Herwegh
3.8	Petrological and structural observations along the Nestos Shear Zone in southern Bulgaria with emphasis on grandite-cpx-bearing rocks A. Katrin Wellnitz, Thorsten J. Nagel and Nikolaus Froitzheim
2.6	Strukturgeologisches 3D-Modell des Nordcampusbereiches der Georg-August-Universität Göttingen – eine erste Näherung Henrike Werner, Bernd Leiss, Till Heinrichs und David C. Tanner
4.19	Microfabrics and deformation mechanisms of experimentally deformed and recompacted Asse rock salt: The impact of grain boundary brine Janet Zulauf and Gernold Zulauf