

GEO-FUTURE

GFZ German Research Centre for Geosciences
Telegrafenberg, Potsdam
November 26-30, 2012



Monday November 26: Registration and Opening Ceremonies

- 9:00 Registration and mounting posters, GFZ Building H (Haus H)
- 10:30 Welcome Address from Prof. Brian Horsfield, GFZ Potsdam
- 10:40 Welcome Address from Teuns Phahlmohlaka, National Research Foundation of South Africa
- 11:00 GEO-FUTURE: Introduction and workshop goals Dr. Robert Trumbull (GFZ)
- 11:20 Prof. Maarten deWit, AEON; Earth Stewardship Science in South Africa
- 11:50 Dr. Fenton Cotterill, AEON: Landscape Evolution, Geocodynamics and Earth System Science
- 12:20 Keynote Earth Observation (Dr. Christoph Förste and Team, GFZ)
- 13:00 Lunch at GFZ canteen
- 14:00 Keynote Energy Resources (Dr. Hans-Martin Schultz, GFZ)
- 14:30 Keynote: Mineral Resources & their importance for the German industry (Dr. Herwig Marbler, BGR - DERA)
- 15:00 Keynote: Land use, soils and climate change. Critical Zone Research (Prof. Cornie van Huysteen, UFS)
- 15:30 Coffee Break + Poster viewing
- 16:30 Buses to Opening Reception in Berlin Museum of Natural History (*registered guests only*)
- Welcome Addresses (Natural History Museum, Room 201)
- 18:15 H.E. Reverend Dr. M. A. Stofile, Ambassador of the Republic of South Africa
Prof. Uwe Reimold: Natural History Museum: Research profile of the Museum in Southern Africa
- 19:00 Dinner reception in the Hall of Dinosaurs
- 21:30 Return buses



TUESDAY, November 27

MORNING

Time	THEME	Presenter	Type	Time	Title
9:00		TRUMBULL		5	Announcements
9.05	Capacity Building	TREDOUX, Marian	O	15	International programmes as vehicles for capacity building: and overview of Inkaba Phase 2.
9.20	Capacity Building	STRYDOM, Kariena	PP	10	The impact of organisational culture on the attainment of strategic visions for merged higher education institutions
9.30	Capacity Building	FOURIE, Stoffel	O	15	Recent Advances with TIAS and the Science and Technology Train
9.45	Capacity Building	HEUBECK, Christoph	O	15	The Barberton-Makhonjwa Mountains Geotrail: Explaining the early history of our planet to the general public
10	Capacity Building	PURCELL, Walter	O	15	Analytical Chemistry - Stepchild of Chemistry
10.15	Earth Observation	COMBRINCK, Ludwig	O	15	Earth and Ocean Monitoring Network across Southern Africa
10.30	Earth Observation	KORTE, Monika	O	15	Geomagnetic field evolution in southern Africa from 2005 to 2010
10.45	Earth Observation	DOUCOURE, Moctar	O	15	High-Resolution Airborne Geophysics Observatory for Research and Monitoring: Coastal Ecosystems, Earth Resources, Built Environment
11	30 min Coffee	30 min Coffee + Tea			
11.30	Earth Observation	CROUKAMP, Leon	PP	10	A Lunar Geotechnical GIS with reference to geotechnical work done at Matjiesfontein Geodesy Observatory
	Earth Observation	+ poster VAN WYK	PP		Properties of local material for construction at Matjiesfontein Geodesy Observatory (Croucamp)
11.40	Earth Observation	NICKOLA, George Leslie	PP	10	High-precision steering and pointing control of a satellite/lunar laser ranging telescope
11.50	Earth Observation	MOGOROSI, Alancia	PP	5	Modeling the dynamic effects of Earth tides on satellite orbit
11.55	Earth Observation	MUNGHEMEZULU, Cilence	PP	5	Determination of geodetic velocity field parameters for the African tectonic plate using GNSS: A project in the African Geodetic Reference Frame
12	Earth Observation	MUNGHEMEZULU, Cilence	PP	5	Comparison of Velocity Solutions from HRAO IGS station and MOBLAS-6 SLR collocated at Hartebeesthoek Radio Astronomy Observatory
12.05	Earth Observation	NKOSI, Nokwazi Purity	PP	5	Characterization and development of optical components for the Cassegrain telescope and laser beam Coudé path of a Lunar Laser Ranger
12.10	Earth Observation	VAN DE HEYDE, Valentino	PP	5	Application of MAGIC code to computer TEC over Southern Africa region using GNSS networks
12.15	Geophysics & crustal tectc	MALEPHANE, Hlompho	PP	10	Seismic Hazard Assessment of the Western Arid Regions of South Africa: a Preliminary Study
12.25	Geophysics & crustal tectc	SMIT, Louis	PP	5	Microseismic observation in the Cape Fold Belt, Western Cape, South Africa
12.30	Geophysics & crustal tectc	ANDREOLI, Marco	PP	10	The Tectonic Stress across South Africa: Further Evidence for the Wegener Stress Anomaly
12.40	Geophysics & crustal tectc	KUETTER, Sissy	PP	10	Magnetotelluric experiments across the southern Barberton greenstone belt, South Africa
12.50	Geophysics & crustal tectc	CHEN, Xiaoming	PP	10	Constrained 2D anisotropic inversion of magnetotelluric data
13	Geophysics & crustal tectc	MAKHUBELE, Marvel	PP	5	a geophysical survey from Simonstown to Smitswinkel's Bay, with a specific focus on the distribution of dolerite dykes.
13.05	Geophysics & crustal tectc	MOLZEN, Gregory Allan	PP	5	The manifestation of supercontinental break-up by emplacement of mafic dykes: Gondwana and Rodinia dispersal events.
13.10	Geophysics & crustal tectc	MUEDI, Thomas	PP	5	Cretaceous brittle deformation structures in the west and east coast regions of southern Africa: dyke geometry along the Namibian margin and joint systems in the Table Mountain Group and Karoo intrusions flanking the Cape margin
13.15	Geophysics & crustal tectc	TSAKOU, Stephane	PP	5	The structural evolution and geochemical characterization of metasedimentary gneisses of the Korannaland Group along and adjacent to the Neusspruit Shear Zone. Northern Cape Province, South Africa
13.20	Geophysics & crustal tectc	MONDON, Jean-luc	PP	5	A study of the lithostratigraphy of the Seychelles Microcontinent using well data and seismic interpretation.
13.30	LUNCH and POSTERS	75 minutes, coffee + tea at posters			



Presentation type
O = oral: 15 minutes unless otherwise listed
PP = poster presentation: 5 minutes (Hons, MSc) 10 minutes (others unless otherwise listed)

TUESDAY, November 27

AFTERNOON

Time	THEME	Presenter	Type	Time	Title
14.45	Geophysics & crustal tectonics	VAN BEVER DONKER, Jan	O	15	Folding, Thrusting and granitoids along the edge of the Kaapvaal Craton
15	Hydrocarbons & sediment	SHECK-WENDEROTH, Magd	O	15	The thermal and density structure of passive margins
15.15	Hydrocarbons & sediment	SONIBARE, Wasiu	PP	10	An integrated approach to 3D geological modelling of the Western Bredasdorp Basin (South Africa)
15.25	Hydrocarbons & sediment	LOGUE, Andrew	PP	5	Orientation of maximum horizontal stress (SHmax) in the Orange basin and Outeniqua sub-basins of South Africa: neotectonic implications
15.30	Hydrocarbons & sediment	DOMINICK, Nehemiah	PP	5	Reservoir heterogeneity of the sandstone reservoirs within the Pletmos basin, Block 11a, offshore South Africa.
15.35	Hydrocarbons & sediment	MABONA, Nande	PP	5	Application of petrophysics and seismic in reservoir characterization. A case study on selected wells, in Orange basin, South Africa.
15.40	Hydrocarbons & sediment	FADIPE, Oluwaseun	PP	10	The application of fluid inclusion studies to decipher diagenesis and hydrocarbon type: insights from the Bredasdorp Basin, offshore South Africa
15.50	Hydrocarbons & sediment	MIKES, Daniel	PP	10	Upscaling of relative permeability in heterogeneous rocks
16.00	Hydrocarbons & sediment	BLACK, Dawn	PP	5	The Collingham Formation as a regional caprock to shale gas
16.05	Hydrocarbons & sediment	CHERE, Naledi	PP	5	Shale gas potential of Permian black shales in the Karoo Basin, South Africa.
16.10	Hydrocarbons & sediment	GEEL, Claire	PP	5	Preliminary results from core drilling, Lower Ecca Group north of Wolwefontein in the Eastern Cape
16.15	Hydrocarbons & sediment	SLAMANG, Shereen	PP	5	A geological study of the Ecca Group between Grahamstown and Fort Beaufort
16.20	Hydrocarbons & sediment	LOMBARD, Donovan	PP	5	Facies architecture and reservoir quality of Unit B, Permian Laingsburg Formation, southwestern Karoo Basin, South Africa
16.25	Hydrocarbons & sediment	MCLEAN, Christopher	PP	5	Large risk analysis in petroleum system science
16.30	Hydrocarbons & sediment	BERRY, Richard	PP	5	Depositional Hiatuses within experimental delta
16.35	Hydrocarbons & sediment	HASSAN, Safiya	O	15	Stacked, Lower Miocene tide dominated estuaries, Northwestern Egypt
16.50	45 min Coffee/Tea + Posters				
17.25	Energy and environment	SHAKHANE, Teboho	PP	10	Hydrogeological concerns about shale fracking in South Africa
17.35	Energy and environment	BENEKE, Louis	PP	10	Development of a Solar Power Plant
17.40	Energy and environment	BENTILE, Abraham	PP	5	Geochemical analysis of soil in close proximity with the two coal fired power stations and one nuclear power station in South Africa.
17.45	Energy and environment	DHANSAY, Taufeeq	PP	5	Low-enthalpy geothermal energy potential of South Africa
17.50	Energy and environment	MEYER, Nicole	PP	5	Natural carbonation of Karoo dolerites at New Denmark Colliery: A case study for engineered carbonation
17.55	Final poster viewing				
18:30	DINNER in GFZ canteen				
20	Public Lecture	WEBER, Michael		30	Geophysical Surveys in the Skeleton Coast of NW Namibia, Science Highlights from the SPP-SAMPLE projects
22.00	Bus return to Youth Hostel Potsdam				

Presentation type

O = oral: 15 minutes unless otherwise listed

PP = poster presentation: 5 minutes (Hons, MSc) 10 minutes (others unless otherwise listed)

WEDNESDAY, November 28

MORNING

Time	TOPIC	Presenter	Type	Time	Title
9	Landscape evolution	LINOL, Bastien	PP	10	The Kalahari Epeirogeny of sub-Saharan Africa: linking Kalahari Plateau uplift with the subsidence history of the intracratonic Congo Basin
9.10	Landscape evolution	SCHARF, Taryn	PP	10	Denudation rates and geomorphic evolution of the Cape Mountains, determined through the use of in-situ produced cosmogenic ¹⁰ Be
9.20	Land use, soils & water	MABUZA, Brenton	PP	5	Investigating Reasons For The Lack of Redoximorphic Features in Sandy Wetland Soils Of The Kosi Bay Coastal Wetland
9.25	Land use, soils & water	JOHNSON, Tracey	PP	5	Evaluation of Iron coated tubes to detect reduction in soils for wetland identification in the Kruger National Park, South Africa
9.30	Land use, soils & water	MOHASE, Lintle	O	15	Elicitors in Russian wheat aphid saliva induce defence responses in wheat
9.45	Land use, soils & water	VISSER, Botma	O	15	Impact of selected plant activators on wheat and herbicides on soil microbial populations
10	Land use, soils & water	LOKE, Palo Francis	PP	10	Long-term effects of wheat production management on exchangeable base cations and exchange capacity of a Plinthosol in semi-arid South Africa
10.10	Land use, soils & water	VAN AARDT, Andri	PP	10	A vegetation and environmental analysis of the Palaeo-kimberley, Palaeo-Modder Rivers and the surrounding area, Free State Province, South Africa
10.20	Land use, soils & water	ADAMS, Adrian	PP	5	Abiotic transformation of atrazine in soils
10.25	Land use, soils & water	THARAGA, Phumudzo	PP	5	Analysis of Accumulated Daily Chill Units At Bethlehem, South Africa
10.30	Land use, soils & water	KOIKOI, Likeleli	PP	5	The Effects of Sewage Effluents on the Water Quality of Sepanespruit, Thaba-Nchu in the Free State
10.35	Land use, soils & water	VERMAAS, Susanna I-	PP	5	Estimating recharge of an aquifer through surface infiltration methods - a chemical and physical perspective
10.40	Land use, soils & water	VAN TONDER, Danel	PP	10	The development and evaluation of solar desalination technology
10.50	50 min Coffee + Posters				
11.40	Open Session	FRIMMELL, Hartwig	O	15	Did pre-existing lithospheric anisotropies control the opening of the South Atlantic?
11.55	Open Session	ALMANZA, Roberto	PP	5	Structural Control of Joints on the Geomorphology of the Groot and Bobbejaans River Canyons in the Western Cape, South Africa
		COETZEE, Tanya	<i>absent</i>	0	A Petrographic study of the joint filling minerals found in the Prince Albert Formation of the Eccca Group within the Karoo Supergroup near Jansenville.
12.00	Open Session	DLAMINI, Zandile	PP	5	A structural study of natural fracture systems at the transition between the Cape Fold Belt and the Karoo Basin Eastern Cape, South Africa
12.05	Open Session	MDLULI, Nomfundo	PP	5	Structural investigation and mapping of the coastline between point Cape Recife and schoenmakerskop, Port Elizabeth
12.10	Open Session	MILLER, Daniel	PP	5	Geological mapping and geochronology of the Kaaimans Group rocks that outcrop along the coast directly south of George.
12.15	Open Session	MILLER, Warren	PP	5	New field mapping and tectono-stratigraphy of the (Pre-Cape) Gamtoos Group, Eastern Cape, Port Elizabeth
		SAFFOU Eric	<i>absent</i>	0	Structural and geomechanical modelling of the evolution of structures in the Warm Zand area, Kakamas terrane, Northern Cape Province, South Africa
12.20	Open Session	THOMPSON, Shane	PP	5	A biostratigraphic correlation between the Otavi and Nama Groups in Namibia, to the lower Kango Group in South Africa; using Otavia fossils
12.25	Open Session	JACOBS, Tamzon	PP	5	Magnetite composition and its use in provenance studies
12.30	Open Session	KIDANE, Abiel	PP	5	Textural and Chemical analysis of Zircons using SEM and EMP
12.35	Open Session	ENGELHARDT, Jonath.	PP	5	Constraints from high resolution zircon geochronology on age and provenance of the Archean Moodies Group, Barberton Greenstone Belt, South Africa
12.40	Open Session	MOLOKOANE, Pule	PP	5	Synthesis, characterisation and catalytic applications of 3-hydroxy-2-methylpyran-4-one (maltol) and 3-hydroxy-2-ethylpyran-4-one (ethyl maltol) derivatives
13	LUNCH and POSTERS 75 minutes, coffee + tea at posters				



WEDNESDAY, November 28

AFTERNOON

Time	TOPIC	Presenter	Type	Time	Title
14.15	Platinum Value Chain	ROELOFSE, Frederick	O	10	The lower Main Zone in the Northern Limb of the Bushveld Complex: A product of mush emplacement?
14.25	Platinum Value Chain	GAUERT, Christoph	O	10	Mineralogical and geochemical investigations of upper Critical Zone rocks S and N of the Steelpoort fault, eastern Bushveld Complex
14.35	Platinum Value Chain	REID, David Louis	O	10	IRUP sees the light of day: open pit exposures reveal their emplacement by incremental replacement
14.45	Platinum Value Chain	VEKSLER, Ilya	O	10	Electrochemical processes in the Bushveld and other mafic layered intrusions
14.55	Platinum Value Chain	SIAD, Abdi	O	10	Geochemical characterization of metasomatized rocks within the Platreef at Sandsloot farm, Bushveld Complex A multivariate statistical approach
15.05	Platinum Value Chain	BAILIE, Russell	O	10	Petrographic evidence for multiple fluid flow events and extensive metasomatism of the Platreef above a carbonate footwall, Sandsloot, N Bushveld Complex
15.15	Platinum Value Chain	REID, David Louis	PP	5	Application of modern analytical techniques and innovations to the characterization of platinum ores : 3D Mineralogy
	Platinum Value Chain	REID, David Louis	PP	5	Application of modern analytical techniques and innovations to the characterization of platinum ores: search for nanoscale PGM
15.25	Platinum Value Chain	TERBLANS, J J (Koos)	O	10	Molecular Dynamics simulations to characterize Platinum nanoparticles: research instruments available in the Physics department at UFS
15.35	Platinum Value Chain	PURCHASE, Megan	PP	10	Investigation of the positioning of Platinum-group Minerals in chromites of the Bushveld Igneous Complex, South Africa
15.45	Platinum Value Chain	HOOSAIN, Yafah	PP	10	The framework and geochemistry of regolith associated with platinum-group element mineralization in the Rooipoort prospect, Platreef
15.50	Platinum Value Chain	KHALO, Mmapholo Pric	PP	5	Serpentinisation in the Platreef of the northern limb, Bushveld Complex
15.55	Platinum Value Chain	BEUKES, Jarlen	PP	5	Investigation of Norites of the Merensky Reef Unit at Two Rivers Platinum, Eastern Bushveld
16	Platinum Value Chain	MARKRAM, Justine	PP	5	Mineralogical & geochemical interpretation on the pegmatoidal and non-pegmatoidal Merensky reef
16.05	Platinum Value Chain	ANDREWS, Marcelene	PP	5	The use of chemostratigraphy and geochemical vectoring as an exploration tool for platinum group metals in the Platreef, Bushveld Complex: a case study
16.10	Platinum Value Chain	CHIWESHE, Trevor	PP	10	Spectrometric determination of osmium
16.20	Platinum Value Chain	MADITO, Moshawe	PP	10	The segregation of Indium from polycrystalline Copper crystals
16.30	45 min Coffee + Posters				
17.15	Mining and the environment	LIPPMANN-PIPKER, Joh	O	10	Long-term, on-site borehole monitoring of gases released from an ?active? fault system at 3.6km depth, TauTona Gold Mine, South Africa
17.25	Mining and the environment	NTHOLI, Thakane	PP	10	Technical and socio-economic feasibility of the Passive Underground Mine-water Purification (PUMP) model
17.35	Mining and the environment	MIELKE, Christian	PP	10	Field Spectroscopy of Geological Materials, Alteration Zones and Mine Waste; Possible Applications and Test Sites for Hyperspectral Sensor EnMAP
17.45	Mining and the environment	BOESCHE, Nina Krisiti	PP	10	Detecting rare earth elements in western Mongolia
17.55	Mining and the environment	AMPONSAH-DACOSTA	PP	5	Mineralogical characterization of South African PGM tailings with the aim of evaluating their potential for Mineral Carbonation
18.05	Mining and the environment	LEKGAU, Sefularo	PP	5	Mineralogical investigation of historic PGE tailings of Amandelbult mine, Limpopo Province and their potential use for CO2-sequestration.
18.10	Mining and the environment	MATSHUSA, Khodani	PP	5	Geo-environmental modelling of heavy metals dispersion at Klein Letaba and Louis Moore tailings dams, Giyani Greenstone Belt, South Africa
18.15	Mining and the environment	MAKHADI, Rinae	PP	5	Geochemical analysis of surface water quality in the Welkom area with special reference to impacts on the environment
18.20	Mining and the environment	MILANZI, Kenneth	PP	5	Investigation of nitrate contamination of groundwater associated with chromite mining in the Kroondal area, South Africa
18.25	Final posters				
19.00	DINNER				
	Poster REMOVAL Wednesday Evening				
20.30	Public Lectures				
	Dr. Hugues Lantuit	AWI Telegrafenberg	O	30	Climate change in the Arctic: The fate of frozen ground and frozen water
	Dr. Uwe Schliwen & Dr. Fenton CcLMU Munich & AEON		O	30	Using (next generation) molecular clocks in fish phylogenies to understand landscape evolution
22:00	Bus return to Youth Hostel				

GEOFUTURE
Planning Sessions and Student Activities



THURSDAY November 29

Students: Geo.X partner institutes

9.00	Group A: (max 33) Bus to Free University Berlin full-day visit to Dept. of Earth Sciences
17:30	Bus pick-up for Urania lecture (lunch packets provided on bus)
9.00	Group B: (max 40) Public transport to Natural History Museum half-day tour, return to Potsdam
14:00	Lunch in GFZ cantine

Researchers, project leaders and guests: GEO-FUTURE discussions

9.00	Future initiatives: general discussions Opening address Joachim Rüss, BMBF	Auditorium Haus H
ca. 11.00	Coffee and breakout into groups	Seminar rooms Haus H
13.00	Lunch in GFZ cantine	
14.00	Continue group discussions as needed coffee available in foyer	Seminar rooms Haus H
15.00	General discussion in plenum	Auditorium Haus H

Public Lecture at the Urania Hall in Berlin

16:00	Soup and snacks in GFZ cantine
17:30	Buses leave for Berlin
19:30	Prof. Maarten deWit <i>Earth Stewardship Science with Everyone a Stakeholder</i>
22:00	Return to Potsdam

FRIDAY November 30

Students: Short course alternatives

9.00 - 11:00	Sedimentary Basins & Hydrocarbon Systems room VR2 by W. Sonibare
9.00 - 11:00	Layered Mafic Intrusions & Ore Systems room VR3 by Dr. I. Veksler
13.00	Lunch in GFZ cantine

Researchers, project leaders and external guests

9.00	Business meetings etc. (ad hoc)	Seminar rooms Haus H
10:00	Remote SIMS node South Africa (room VR1)	
13.00	Lunch in GFZ cantine	

Registered participants only

14:00 - 17:00	Potsdam visitors tour
18:00 - 24:00	Farewell Dinner and Party, Restaurant Walhalla Potsdam