

## 26th ECGS Workshop

Co-organized with the National Museum of Natural History of Luxembourg and  
The Royal Museum for Central Africa, Belgium

### Active Volcanism & Continental Rifting with special focus on the Virunga (North Kivu, DRC)

---- November 19-21, 2007 ----

#### - PROGRAM -

#### Monday November 19th

- 13:30 - 13:40    Opening session
- 13:40 - 14:20    Ebinger C. et al.  
*Time and Length Scales of Extension and Magmatism in the East African Rift System*
- 14:20 - 14:40    Bryan S. and Ernst R.  
*Revised Definition of Large Igneous Provinces (LIPs)*
- 14:40 - 15:00    Meyer R. et al.  
*Crustal-mantle interaction during a continental rift phase and its rift to drift evolution*
- 15:00 - 15:20    Tentler T.  
*Dynamics of magma emplacement in controls of rift segmentation and propagation*
- 15:20 - 15:40    Sigmundsson F.  
*Multi-mode magma storage in volcano roots : Physical aspects and examples from Iceland*
- 15:40 - 16:10.    Coffee break and Posters session
- 16:10 - 16:50    Stamps S. et al. (speaker : Calais E.)  
*Present-day kinematics of the East African Rift*
- 16:50 - 17:10    Delvaux D. et al.  
*Fault control of the Ngozi-Songwe geothermal system in the Rungwe Volcanic Province (East African rift, SW Tanzania)*
- 17:10 - 18:30    Poster presentation session (2 min. oral presentation per poster)
- 18:30 - 19:30    Posters session

## Tuesday November 20

- 08:00 - 08:30 Welcome
- 08:30 - 08:50 Sebagenzi S.  
*The NE-SW nascent branch of the East African Rift system in the southeastern DR Congo and Zambia : geophysical evidences*
- 08:50 - 09:10 Bauer F. et al.  
*Denudation history of the Rwenzori Mountains, Albertine Rift, Uganda*
- 09:10 - 09:30 Ernst G. et al.  
*Research and Monitoring at Oldoinyo Lengai Volcano, N. Tanzania: Review of recent advances*
- 09:30 - 09:50 Basu A. et al.  
*Petrochemical Geodynamics of Nyiragongo and Nyamuragira Volcanoes in the Western Rift of the East African Rift System (EARS).*
- 09:50 - 10:20 Coffee break and Posters session
- 10:20 - 11:00 Yirgu G. et al.  
*The Da'Ure volcanic eruption during the September 2005 Dabbahu rifting episode, Afar, Ethiopia*
- 11:00 - 11:20 Gonzales P. et al.  
*Three dimensional volcanic deformation fields at Tenerife Island : integration of GPS and Time Series of InSAR (SBAS)*
- 11:20 - 11:40 Van Cranenbroeck J.  
*Single to multi frequency GNSS signal processing solutions for active volcanism and continental rifting monitoring applications.*
- 11:40 - 12:00 d'Oreye N. et al.  
*The November 2006 Nyamulagira eruption revealed by InSAR*
- 12:00 - 13:30 Lunch
- 13:30 - 14:10 Tedesco D. et al.  
*The January 2002 Volcano-Tectonic Eruption of Nyiragongo volcano, Democratic Republic of Congo*
- 14:10 - 14:30 Durieux J.  
*Title to be communicated. Topic: Risk mapping*
- 14:30 - 14:50 Papale P. et al.  
*Hazard by lava flows at Nyiragongo volcano, West Virunga, from numerical simulations of lava flow paths.*

- 14:50 - 15:10 Wadge G.  
*Temporal and spatial analysis of the eruptions of Nyamuragira*
- 15:10 - 15:30 Vaselli O. et al.  
*Environmental impact of the Nyiragongo volcanic plume after the 2002 eruption*
- 15:30 - 16:00 Coffee break and Posters session
- 16:00 - 16:20 Husson P.  
*Operation of the VAAC Toulouse related to African Volcanoes*
- 16:20 - 16:40 Kervyn F. et al.  
*Towards the progressive setup of a GIS platform integrating major monitored volcanic parameters of the GORISK project, Nyiragongo (DR Congo).*
- 16:40 - 17:00 Reiter E.  
*Use of GIS and XML for geochemical data survey : information for public health issue, transfer to research*
- 17:00 - 17:20 De Bernardinis B. et al. (speaker: V. Bosi)  
*Civil protection organization in volcanic emergency*
- 17:20 - 18:20 Posters session
- 19:00 - 20:00 City Tour (included in the transportation to the official dinner)
- 20:30 - 00:30 Official dinner in the Medieval Castle of Bourglinster

## Wednesday November 21

- 08:00 - 08:30 Welcome
- 08:30 - 09:10 Wright T. et al.  
*Pre- co- and post-dyking deformation in the Dabbahu rift segment (Afar, Ethiopia) observed with satellite geodesy*
- 09:10 - 09:30 Wauthier C. et al.  
*Modeling of InSAR displacements related with the January 2002 eruption of Nyiragongo volcano (DRC)*
- 09:30 - 09:50 Heleno S. et al.  
*Discrimination between tropospheric effects and crustal deformation in SAR interferograms of Fogo volcano, Cape Verde Islands (1993 - 2006)*
- 09:50 - 10:10 Yirgu G.  
*The August 2007 fissure eruption on the Dabbahu magmatic segment*
- 10:10 - 10:30 Oyen A. et al.  
*InSAR monitoring of Ol Doinyo Lengai (Tanzania) : the March 2006 and July 2007 events*

- 10:30 - 11:00 Coffee break and Posters session
- 11:00 -11:40 Pagliuca N. et al.  
*The monitoring of seismic activity at Nyiragongo volcano through telemetered seismic network, Goma Volcano Observatory (Democratic Republic of the Congo)*
- 11:40 - 12:00 Mavonga T. et al.  
*Seismic Activity prior to the recent eruptions of volcano Nyamuragira, Western Rift Valley of Africa*
- 12:00 - 12:20 Shuler S. and Ekström G.  
*Anomalous Earthquakes in the Virunga*
- 12:20 - 12:40 Kavotha et al.  
*Recent major magmatic processes at volcano Nyiragongo inferred from long-period earthquakes*
- 12:40 - 14:00 Lunch
- 14:00 - 14:20 Lukaya F. et al.  
*Recent seismic activity at volcano Nyamulagira, Western Rift Valley of Africa*
- 14:20 - 14:40 Ferdinand R.  
*Lake Natron (Tanzania) earthquake of 17<sup>th</sup> July 2007: First Report*
- 14:40 - 15:00 Tedesco D. et al.  
*Active and passive margins of the Western African Rift: Helium and Carbon Isotopic Signatures in the Lake Kivu Region (D.R.C)*
- 15:00 - 15:20 Bobrowski N. et al.  
*Niyragongo - A huge global bromine and sulphur emission into the free troposphere*
- 15:20 - 15:50 Coffee break and Posters session
- 15:50 - 16:10 Rouwet D. and Kusakabe M.  
*He-C-N isotope systematics of dissolved gases in Lake Nyos and Monoun (Cameroun, Western Africa)*
- 16:10 - 16:30 Rosenthal A. et al. (speaker : Link K.)  
*Geochemical constraints on the origin of silica-poor alkaline volcanic rocks in the Toro-Ankole and Bufumbira regions of western Uganda*
- 16:30 - 17:30 Discussion and closing session

## POSTERS

- 01 Albaric J. et al. *SEISMO-TANZ'07: A dense seismological broadband network for a seismotectonic and structural study of the North Tanzanian Divergence*
- 02 Atanga M. et al. (speaker: Ernst G.) *Health and environmental impact from basaltic ash falls : The case of the 1999 eruption of Mt Cameroon*
- 03 Chakrabarti R. et al. (speaker: Basu A.) *Determining Eruption Ages and Timescales of Magmatic Processes in the Nyiragongo and Nyamuragira volcanics from U-Th-Ra disequilibria*
- 04 Chakrabarti R. et al. (speaker: Basu A.) *Isotopic and Geochemical study of the Nyiragongo and Nyamuragira volcanics in the western rift, East African rift system*
- 05 van Cranenbroeck J. et al. *Deployment of a GNSS volcano monitoring network on Nyiragongo.*
- 06 Durieux J. *Title to be communicated - topic: UN support to GVO and risk assessment*
- 07 Ernst G. et al. *Morphometry and dynamics of a basaltic eruption: The case of the 1999 SW rift zone eruption of Mount Cameroon*
- 08 Fontijn K. et al. *Volcanotectonic architecture of Rungwe Volcanic Province (SW Tanzania) : Low cost remote sensing study.*
- 09 Fontijn K. et al. *A review on recent volcanology and volcanic hazards in the Rungwe Volcanic Province (SW Tanzania).*
- 10 Frischknecht C. et al. *Challenges of SAR interferometry on Mount Cameroon*
- 11 Galle B. et al. *Installation and first results from sulfur dioxide gas measurements on Nyiragongo within the Novac Project*
- 12 Hashimoto M. et al. (speaker: d'Oreye N.) *Coseismic and Postseismic Displacements From the Mozambique Earthquake of 22 February 2006 Detected by InSAR*
- 13 Head E. et al. *Eruptions of Nyamuragira Volcano, D.R. Congo (1980-2006)*
- 14 Kervyn M. et al. *Analogue modelling of magma ascent and how it can be used to anticipate outbreak location at Central African volcanoes*
- 15 Kies A. et al. *CO<sub>2</sub> and radon measurements around Nyiragongo volcano*
- 16 Lukaya F. et al. *Are seismicity and magma output at Nyamuragira in an increasing stage ?*
- 17 Mafany G. et al. *Using lightning detection for a low cost monitoring of explosive eruptions in Sub-Saharan Africa: The case of Mount Cameroon*
- 18 Mathieu L. and van Wyk de Vries B. *Sub-volcano complexes morphology and deformations that their formation induce in a volcanic edifice*

- 19 Modisi M. et al. *Trans-Kalahari rifting: the case of the Okavango and Makgadikgadi basins, northern Botswana*
- 20 Njome S. et al. (speaker: Ernst G.) *Mineral Chemistry and Whole Rock Geochemical Data of the Mount Cameroon Rift Basalts : Implications for Petrogenetic and Geotectonic Evolution*
- 21 Njome S. et al. *Loading And Structural Instability At The Mount Cameroon Volcano, West Africa.*
- 22 Nkono C. et al. *Geodynamic framework of Cameroon Volcanic Line highlighted by Shuttle Radar Topography Mission (SRTM) Digital Elevation Models (DEMs)*
- 23 Ntasin G. et al. *Bambouto Caldera Formation and the 20th July 2003 landslides phenomena along the volcanic line, Cameroon*
- 24 d'Oreye N. et al. *A major rifting event detected by InSAR : The Lake Natron (Tanzania) July 2007 crisis.*
- 25 Pasche N. et al. *Methane in Lake Kivu: risks of gas eruption?*
- 26 Savelli C. (no speaker) *Oligo-Miocene rift of the West Mediterranean area and the subsequent onset of westwards subduction*
- 27 Sawyer G. et al. *Investigation into magma degassing at Nyiragongo volcano, Democratic Republic of Congo*
- 28 Smets B. et al. *The "Mazukus" in south of Nyiragongo and Nyiamulagira (Democratic Republic of Congo) : hypothesis of formation and first risk assessment.*
- 29 Tassi F. et al. (speaker: Vaselli O.) *Chemical and isotopic stratigraphy of water and dissolved gases at Lake Kivu*
- 30 Trefois J. *The International Charter of Space and Major Disasters: the 2002 Nyiragongo Emergency, city of Goma, North Kivu, D.R. Congo*
- 31 Tsafack J. et al. *Occurrence of a sedimentary basement under the Mount Cameron active volcano (Cameroon Volcanic Line)*
- 32 Wafula M. et al. *Seismic activity associated to the Nyamuragira eruptions for the period from 2000 to 2006, Virunga Region, D.R. Congo*
- 33 Wafula M. et al. *Impacts of the eruptions of Nyiragongo on January 17, 2002 and Nyamuragira November 27, 2006 on the environment*
- 34 Wandji P. et al. *The mount Manengouba, a mio-quaternary horst stratovolcano of the Cameroon Volcanic Line (Central Africa) : new volcanic successions, geochemical evidence and isotopic data*