

British Geophysical Association, New Advances in Geophysics Meeting 2010

Magma Emplacement and Storage in the Earth's Crust

Day 1: Thursday 11 February 2010

- 09:30** **Registration/Coffee**
- 10:00** **Welcome and Introduction**
Tim Wright, *University of Leeds*
- 10:05** **KEYNOTE: Geophysical evidence for current magma accumulation in the continental crust: Examples from the Andes.**
Matt E. Pritchard, *Cornell University*
- 10:45** **Using InSAR to Map and Study Deformation of Aleutian Volcanoes**
Zhong Lu, *United States Geological Survey*
- 11:15** **Erupting silicic batholiths**
Joachim Gottsmann, *University of Bristol*
- 11:45** **Fifteen years of observation of the Montserrat magmatic system**
Geoff Wadge, *Univeristy of Reading*
- 12:15** **LUNCH & POSTERS**
- 13:15** **KEYNOTE: Geophysical Constraints on Magma Emplacement and Storage at Mid-Ocean Ridges**
William Wilcock, *University of Washington*
- 14:00** **The petrological record of magmatic processes in the Icelandic crust**
John MacLennan, *University of Cambridge*
- 14:30** **Seismicity beneath the Askja volcanic system, central Iceland, indicating multiple centres of melt injection from the mantle in a single spreading segment.**
Janet Key, *University of Cambridge*
- 15:00** **Anatomy of dyke intrusion at 15–18 km depth beneath Upptyppingar, north Iceland**
Bob White, *University of Cambridge*
- 15:30** **COFFEE & POSTERS**

- 16:00** **Eruptive episodes: Interplay between magma movements and storage in shallow elastic crust and at deeper ductile levels**
Freysteinn Sigmundsson, *University of Iceland*
- 16:30** **Evidence of melt in the crust and mantle beneath the East African Rift system**
James Hammond, *University of Bristol*
- 17:00** **Locating magma in Afar, Ethiopia – Magnetotelluric studies**
Kathy Whaler, *University of Edinburgh*
- 17:30** **Geodesy reveals deep lateral magma flow and complex magma plumbing in Ethiopian spreading centre**
Tim Wright, *University of Leeds*
- 18:00** **POSTER SESSION AND WINE RECEPTION**
- 19:30** **CLOSE**
- 20:00** **Conference Dinner – tba**

Day 2: Friday 12 February 2010

- 09:00** **Registration**
- 09:30** **KEYNOTE: Magma emplacement and storage at ocean ridges**
Charles Langmuir, *Harvard University*
- 10:15** **Basalt Storage and Differentiation in the Lower Crust and its Relationship to the Seismic Moho**
Jon Blundy, *University of Bristol*
- 10:45** **COFFEE**
- 11:15** **KEYNOTE: Controls of the width of a propagating dyke**
Claude Jaupart, *Institut de Physique du Globe de Paris*
- 12:00** **Lateral transport of magma in long, wide dykes: the Palaeogene dykes of northern England**
Joe Cann, *University of Leeds*
- 12:30** **A simple analytical solution for the coupling of magma chambers and dykes**
Eleonora Rivalta, *University of Leeds*
- 13:00** **LUNCH**
- 14:00** **Thermal implications of magma emplacement geometries and emplacement rates**
Catherine Annen, *University of Bristol*

14:30 Lateral emplacement of granitic magma: laccolithic as opposed to cauldron subsidence in the Palaeogene Mourne granites, N. Ireland
Carl Stevenson, *University of Birmingham*

14:55 Cone sheet emplacement in sub-volcanic systems: a case study from Ardnamurchan, NW Scotland
Craig Magee, *University of Birmingham*

15:20 Closing Remarks
Jon Blundy, *University of Bristol*

15:30 COFFEE/CLOSE

POSTER SESSION (Day 1)

InSAR Observations of Magmatic Processes in the Eastern Branch of the East African Rift
Juliet Biggs, *University of Oxford*

Imaging magmatic intrusion into the upper and lower crust beneath the Ethiopian rift using receiver functions
David Cornwell, *University of Leeds*

Two-Dimensional Numerical Heat Flow Modelling from Multiple Dyke Injection Events in Afar, Ethiopia.
Kat Daniels, *University of Bristol*

Magma ascent by gravitational instability constrained from field observations in the San Rafael desert, Colorado Plateau, Utah
Mikel Diez, *University of Bristol*

InSAR observations of the Central American Volcanic Arc between 2006-2009
Susanna Ebmeier, *University of Oxford*

Resurfacing a rift: recent basaltic volcanism in Afar
David Ferguson, *University of Oxford*

Crystal sedimentation: analogue and numerical modelling
Mélanie Forien, *Frankfurt Universität*

Emplacement of crystal-rich magmas: insights from the Snap Lake kimberlite intrusion (NW Territories, Canada)
Thomas Gernon, *University of Southampton*

Crustal structure and melt supply variability in the presence of oceanic core complexes: the Mid-Atlantic Ridge at 13°N

Christopher Mallows, *University of Durham*

Melt movement along a dyke at Upptyppingar, north-east Iceland

Hilary R. Martens, *University of Cambridge*

Probing the interior of an active volcano: 3D seismic tomography at Montserrat

Michele Paulatto, *University of Southampton*

The emplacement of saucer-shaped sills: the role of host rock fluidisation and the formation of magma fingers

Nick Schofield, *University of Birmingham*

Imaging the magma chamber under Krafla, NE Iceland

Jon Tarasewicz, *University of Cambridge*