

Volcanic Ash as an Active Agent in the Earth system (VA³):

Combining models and experiments

12-13 September 2016, Universität Hamburg, Germany

Venue: B53 Building, Bundesstr. 53, 20146 Hamburg

Organizers: Ali Hoshyaripour^{1,2}, Matthias Hort¹, Jens Hartmann³

Summary:

Volcanic ash emission, dispersion and deposition can lead to widespread impacts upon different components of the Earth system (e.g. atmosphere, hydrosphere and biosphere), which are directly linked to the physical, chemical and mineralogical properties of the ash. In particular, ash surface characteristics play a key role in its interaction with the surrounding environments. To investigate the volcanic and atmospheric processes that shape these properties, numerical models and experimental techniques have been developed and deployed by different research groups. The proposed workshop aims to integrate the developments in this field and increase collaboration between these groups.

Topics:

The primary topics of the workshop are the state-of-the-art experimental and modeling techniques to study volcanic ash surface with respect to:

1. Physical, chemical and mineralogical characteristics
2. Generation and volcanic processing
3. Atmospheric transport and processing
4. Environmental and climatic impacts

The main objectives of the workshop are to address:

1. State-of-the-art and future directions
2. Premier knowledge gaps and the potential theoretical and experimental solutions
3. Essential considerations to foster model-experiment coupling in volcanic ash research

Lecturers (confirmed):

Costanza Bonadonna (University of Geneva, Switzerland)
Morgan Jones (University of Oslo, Norway)
Peter Webley (University of Alaska Fairbanks, USA)
Raffaello Cioni (University of Florence, Italy)
Ali Hoshyaripour (University of Hamburg, Germany)
Matthias Hort (University of Hamburg, Germany)
Sigurður R. Gíslason (University of Iceland, Iceland)
Ulrich Küppers (Ludwig Maximilian University of Munich, Germany)

¹ Institute of Geophysics / CEN, Universität Hamburg

² Max Planck Institute for Meteorology, Hamburg

³ Institute of Geology, Universität Hamburg

Meeting program

Day 1:

09:00 – 09:20 Registration and coffee
09:20 – 09:30 Brief introduction to the workshop
09:30 – 12:30 **Session 1:** Generation of the ash, its properties and impact
12:30 – 13:30 Lunch break
13:30 – 16:30 **Session 2:** Lab experiments and methods for ash characterization
16:30 – 16:45 Coffee break
16:45 – 18:00 **1st Poster session (10 posters)**

Day 2:

09:30 – 12:30 **Session 3:** Modeling the ash transport and processing
12:30 – 13:30 Lunch
13:30 – 16:30 **Session 4:** Combining the models and experiments
16:30 – 16:45 Coffee break
16:45 – 18:00 **2nd Poster session (10 posters)**
18:00 – 18:30 Round-up of the workshop and feedbacks

Structure of lecture sessions: Session will begin with two lectures from the participating experts (45 minutes each), followed by round-table discussions (1 hour). A 15 minutes break is considered within each session.

Structure of poster sessions: Each participant should present a poster. The session will begin with 10 short talks (three minutes madness) by each presenting author followed by a 45 minutes classic poster session for detailed discussions on each poster for interested participants.

Targeted Audiences

The workshop targets the PhD students, postdocs and experienced scientists working in various research disciplines but on topics directly related to volcanic ash.

Application procedure:

Please submit an abstract (max. 500 words) and a CV (max 3 pages) until 15.07.2016 to the following email address: gholamali.hoshyaripour@uni-hamburg.de.

Because of limited number of places (20 places), only the applications submitted before the above deadline will receive full consideration.

There is no registration fee for the workshop. The host institute will NOT cover the travel costs of the participants.

For questions and further information please contact Ali Hoshyaripour: gholamali.hoshyaripour@uni-hamburg.de.