

EFFUSIVE CRISIS RESPONSE VIRTUAL WORKSHOP

12-15 April 2021

La Réunion



This workshop is organized by the project Lava Advance in Vulnerable Areas financed by the *Agence National pour la Recherche* (ANR-LAVA, PI: A. Harris, program: DS0902 2016; Project: ANR-16 CE39-0009; <https://anr.fr/Project-ANR-16-CE39-0009>) in collaboration with the European Volcano Early warning system project (EVE, PI: J. Marti, grant agreement: n°826292 <http://www.evevolcanoearlywarning.eu/>), and focuses on crisis management in case of effusive volcanic eruption in Europe and worldwide.

The aim of the workshop is to get together many actors in the world of mitigating, and responding to, effusive crises for a 4 days long experience-sharing and brain-storming exercise (including volcano observatories and civil protection).

The workshop includes:

- 1) presentations and discussions focusing on scientific responses to effusive crises and civil protection responses in France, Hawaii, Republic Democratic of Congo, Cameroon, Ecuador, Italy and Iceland.
- 2) presentations about societal issues, community expectations and perspectives during volcanic crises
- 3) an expert elicitation about scientific response to effusive crises

The program is detailed below.

Program

All times are Central European Time - CET (UTC +2)

Monday 12

Introduction to the workshop (Convener: P. Bachèlery; moderator: O. Chevrel)

09:30 Aim of workshop from ANR-LAVA

A.Harris (LMV, France)

09:45 EVE: summary and status

J. Marti (CSIC, Spain)

10:00 Presentation of the expert elicitation during volcanic crises

*A.Tadini (LMV, France), J. Morin (U. Cambridge, UK), A. Harris (LMV, France),
Willy Aspinall (University of Bristol, UK), and Andrea Bevilacqua (INGV Pisa, Italy)*

Session 1: Volcanic crisis management in France (Convener: N. Villeneuve, moderator: O. Chevrel)

11:00 Ongoing volcanic unrest and crisis management in France

JC Komorowski (IPGP, France)

11:30 Volcano crisis management at Piton de la Fournaise

A. Peltier (OVPF, France) + S. Drenne (EMZPCOI, La Réunion, France)

12:00 Contribution of OPGC to volcano crisis response (HOTVOLC, dynVOLC, Oi²)

L. Gurioli (LMV, France)

12:30 - 14:30 BREAK

Session 2: Tracking & modelling effusive eruptions (Convener: A. Harris, moderator: N. Villeneuve)

14:30 Estimation, tracking and delivery of effusion rate data during eruptive crises using the MODIS-MIROVA system

D. Coppola (U. Turin, Italy)

15:00 Tracking effusive eruptions: ASTER URP global sensor web program

M. Ramsey (U. Pittsburgh, USA)

15:30 Modeling lava flows and response during volcanic crises at Piton de la Fournaise

O. Chevrel (LMV, France) & P. Saramito (U. Grenoble, France)

Session 3: Societal issues during crises (Convener: A. Peltier, moderator: A. Harris)

16:00 Social media during crises

C. Rizza (Polytech Paris, France)

16:30 Open Discussion

17:00 Close of first day

Tuesday 13:

Session 3: Societal issues during crises - continue (Convener: A. Peltier, moderator: A. Harris)

09:30 Law and Volcanism in France

O. Dupéré (U. La Réunion)

10:00 Societal issues of volcanic risk at Piton de la Fournaise: sentimental attachment to, and knowledge of, the volcano, visitor frequentation and accidentology

N. Villeneuve (U. La Réunion, IPGP, France)

10:30 Evacuation challenges: the case of the 2007 eruption of Piton de la Fournaise

J. Morin (U. Cambridge, UK)

11:00 Open Discussion

12:00 – 14:00 BREAK

14:00 Unrest examples selected for Piton de la Fournaise

P. Bachèlery (LMV, France)

14:30 Expert elicitation during volcanic crises

Lead by A. Tadini (LMV, France), J. Morin (U. Cambridge, UK), A. Harris (LMV, France) Willy Aspinall (University of Bristol), and Andrea Bevilacqua (INGV Pisa), moderator: A. Peltier

This is an exercise involving all the participants of the workshop

17:00 Close of second day

Wednesday 14:

Session 4: Effusive crisis management around the world (Convener: N. Villeneuve, moderator: O. Chevrel)

09:00 Effusive crisis management in Hawaii, USA
Hannah Dieterich (USGS, HVO, Alaska Observatory)
Tina Neal (USGS, HVO)
Talmadge Magno (emergency manger Hawaii)

10:00 La localisation spatio-temporelle de la population, un renforcement des capacités de gestion des risques liés aux coulées de lave à Goma, RD Congo
Adalbert Muhindo (Head of GVO, DRC)
Joseph Makundi (Civil Protection, DRC)

11:00 Open Discussion

12:00 – 14:00 BREAK

Session 4: Effusive crisis management around the world (Convener: A. Harris, moderator: O. Chevrel)

14:00 Volcanic crisis management: the 1999 and 2000 cases of Mount Cameroon eruptions
Bekoa Ateba (Head of Mount Cameroon Volcano Observatory)
Wokwenmendiam N.P.
To be confirmed

15:00 Volcanic crisis management during the last eruptions in Galapagos (Wolf 2015, Fernandina 2017, 2018 and 2020, Sierra Negra 2018, Ecuador)
Benjamin Bernard (IG-EPN, Ecuador)

16:00 Open Discussion

16:30 Close of third day

Thursday 15:

Session 4: Effusive crisis management the world (Convener: P. Bachèlery, moderator: N. Villeneuve)

09:30 Effusive crises management in Italy

Facing Etna's major flank eruptions in the recent past
Sonia Calvari and Alessandro Bonaccorso (INGV-OE, Catania, Italy)

Civil Protection management of effusive crises in Italy
Domenico Mangione (National civil protection department), Stefano Ciolli (National civil protection department), Nicola Alleruzzo (Sicily regional civil protection department), Francesco Impellizzeri (Sicily regional civil protection department)

10:30 Effusive crisis management in Iceland

Þorvaldur Þórðarson & Ármann Höskuldsson (University of Iceland); Ólafur Helgi Kjartansson & Páley Borgþórsdóttir (Sudurnes District Police, Iceland)

11:30 Open Discussion

12:00 – 14:00 BREAK

14:00 Results of the exercise on expert elicitation during volcanic crises including all scientists

A. Tadini (LMV, France), J. Morin (U. Cambridge, UK), A. Harris (LMV, France), Willy Aspinall (University of Bristol, UK), and Andrea Bevilacqua (INGV Pisa, Italy)

15:00 Discussion and conclusions of the workshop

Launch the idea of a special issue to collate knowledge and findings

16:00 Close of the workshop
