



# NEMOH Final Conference

The Final NEMOH Conference is the conclusive event of a 4-years path during which 18 international young scientists have been trained in different quantitative aspects of volcanology. NEMOH developed through both background training and more specialized training tailored to the specific research carried out by the single fellows, according to continuously updated Personal Career Development Plans.

The Conference will allow the NEMOH fellows to present and discuss their scientific activity and achievements, and will expose them to a top-level selection of international volcano scientists and related sectors of the industry. Open issues as well as current and future trends in several aspects of volcano science will be discussed. An overarching goal is that of completing the training under NEMOH by inviting the fellows to interact with senior colleagues in order to identify relevant developments for the next future, that might catalyze research activities in volcano science for the years coming.

NEMOH is an Initial Training Network under the European Community FP7. The training objective of NEMOH is that of forming the next generation of European volcanologists, capable of extending further the knowledge and understanding of volcano dynamics and the methods and paradigms for volcanic hazard evaluation. Training is conceived to develop in the context of internationally coordinated research structured in closely interconnected research activities.

## Venue

Palazzo Platamone - Catania  
 Culture Building  
 Via Vittorio Emanuele II, 121  
 Comune di Catania  
 (Sicily), Italy



## Registration

**Deadline for registration:**  
 29 October 2015

Registration form available at:  
[www.nemoh-itn.eu](http://www.nemoh-itn.eu)

## PROGRAM

### Day I, 16 November

- 9:00 - 9:30 Registration**
- 9:30 - 9:40 Welcome from the INGV President, Stefano Gresta
- 9:40 - 10:00 Paolo Papale, Project Coordinator
- 10:00 - 10:25 Johannes Thun, *Exploring near-field effects of seismic sources with high density seismic networks*
- 10:25 - 10:50 Léna Cauchie, *Probabilistic inversion of observed and simulated geophysical data at volcanoes*
- 10:50 - 11:20 Coffee break**
- 11:20 - 12:00 Joachim Gottsmann, *From integrated volcano monitoring to next-generation modelling: critical steps for a successful partnership*
- 12:00 - 12:25 Claudio Trovato, *Long Period events at Mt. Etna volcano: Moment Tensor inversion and uncertainties in the source model*
- 12:25 - 12:50 Werner Wittmann, *Modelling of volcano deformation and heat-flow variations at volcanoes*
- 12:50 - 14:30 Lunch**
- 14:30 - 15:10 Freysteinn Sigmundsson, *Increasing role of volcano geodesy in volcanology: Lessons learned from recent Icelandic eruptions and future developments*
- 15:10 - 15:35 Beatriz Martinez Montesinos, *Seismic propagation effects in the upper volcanic edifice*
- 15:35 - 16:00 Hannah Iona Reynolds, *Understanding geophysical signals associated with magma and heat transfer*
- 16:00 - 16:30 Coffee break**
- 16:30 - 18:00 Discussion  
**Reporters:**  
 Magnus T. Gudmundsson  
 Ivan Lokmer  
 Hideo Aochi  
**Moderator:**  
 Chris Bean

**18:00 - 19:00 NEMOH fellows' poster session**

### Day II, 17 November

- 8:50 - 9:00 Welcome**
- 9:00 - 9:30 Sigurður H. Markússon (Landsvirkjun National Power Company, Iceland), *Volcanology and the geothermal industry*
- 9:30 - 9:55 Julie Oppenheimer, *Gas transport and flow regimes in crystal-bearing magmas*
- 9:55 - 10:20 Cristian Montanaro, *Steaming badly in volcanic system*
- 10:20 - 10:45 Laura Spina, *Investigation on the Slow Decompressive Response of Volatile- and Crystal-Bearing Magmas, by Analogue Experimental and Numerical Approaches*
- 10:45 - 11:15 Coffee break**
- 11:15 - 11:55 Don Dingwell, *Rheology experiments on magmas and lavas*
- 11:55 - 12:20 Antonio Capponi, *Gas slug ascent in a stratified magma: implications for shallow conduit dynamics in Strombolian eruptions*
- 12:20 - 12:45 Damien Gaudin, *Observations and modelling of gas and pyroclast ejection in explosive volcanism*
- 12:45 - 14:15 Lunch**
- 14:15 - 14:55 Giovanni Chiodini, *Episodes of volcanic unrest controlled by magma degassing: geochemical and geophysical evidence and physical modeling*
- 14:55 - 15:20 Karen Strehlow, *Aquifers in volcanic regions: Monitoring capabilities and hazards*
- 15:20 - 16:00 Giovanni Macedonio, *Physical modeling of eruption processes*
- 16:00 - 16:30 Coffee break**
- 16:30 - 18:00 Discussion  
**Reporters:**  
 Alison Rust  
 Katharine Cashmann  
**Moderator:**  
 Bettina Scheu

**18:00 - 19:00 NEMOH fellows' poster session**

### Day III, 18 November

- 8:50 - 9:00 Welcome**
- 9:00 - 9:30 Valerio Acocella (Chief Editor, *Frontiers in Earth Science - Volcanology*) and Joachim Gottsmann (Executive Editor *Solid Earth.*), *Open publishing*
- 9:30 - 10:10 Mauro Rosi, *Recent developments in emergency planning at Vesuvius: the major scientific and operational challenges*
- 10:10 - 10:35 Deepak Garg, *A finite element model for magma dynamics in deforming reservoirs*
- 10:35 - 11:00 Francisco Delgado Vences, *A spectral numerical method for stochastic differential equations*
- 11:00 - 11:30 Coffee break**
- 11:30 - 12:10 Charles Mandeville, *Challenges for Volcanic Hazard Risk Reduction in the Next Decade*
- 12:10 - 12:35 Samantha Engwell, *Dynamics and deposits of coignimbrite plumes*
- 12:35 - 13:00 Eduardo Rossi, *Sedimentation and aggregation of volcanic particles*
- 13:00 - 14:30 Lunch**
- 14:30 - 15:10 Chris Newhall, *Learning from volcanoes around the world*
- 15:10 - 15:35 Alex Marti, *On-line coupling of volcanic ash and aerosols transport with global and regional meteorological models*
- 15:35 - 16:00 Pablo Tierz, *Probabilistic Volcanic Hazard Assessment of Pyroclastic Density Currents*
- 16:00 - 16:30 Coffee break**
- 16:30 - 18:00 Discussion  
**Reporters:**  
 Arnau Folch  
 Olivier Jaquet  
 Chiara Cardaci  
**Moderator:**  
 Costanza Bonadonna

**18:00 - 19:00 NEMOH fellows' poster session**

