

IAVCEI News 2016 No: 1-2

INTERNATIONAL ASSOCIATION OF VOLCANOLOGY AND CHEMISTRY OF THE EARTH'S INTERIOR

FROM THE PRESIDENT

Dear Colleagues,



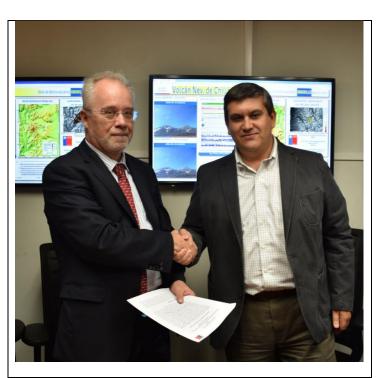
Don Dingwell President of the IAVCEI

It is my great pleasure to accompany this edition of the IAVCEI Newsletter with a short column to highlight a few current matters.

First and foremost, be on the lookout for the 2nd circular of the Cities on Volcanoes meeting (COV9) to be held at Puerto Varas, Chile later this Fall. Hugo Moreno, Paul Duhart and several of their colleagues at SERNAGEOMIN have been working diligently to complete the planning for this event and it promises to be a true highlight in the brief but

illustrious history of these meetings. The location could not be more spectacular, with stunning views (weather permitting) of Osorno and Calbuco volcanoes from the conference venue itself. Of course there will be ample opportunity in the form of field trips to get much better looks at several of Chile's most recently active volcanic areas. Together with general secretary Roberto Sulpizio, I have just visited the venue of the meeting, the surrounding area and the new volcanic Observatory at Temuco. I can tell you that this meeting will not disappoint anyone. While at SERNAGEOMIN headquarters in downtown Santiago de Chile, both your president and secretary general have signed a contract with SERNAGEOMIN regulating the conduction of the meeting.

We wish Hugo, Paul and their colleagues every success as the meeting dates approach.



IAVCEI President Don Dingwell signs the agreement with SERNAGEOMIN in Santiago concerning the upcoming COV 9 meeting in Puerto Varas, Chile

Secondly, the drive for growing our community via personal membership of IAVCEI has begun. We are off to an optimistic start and will monitor closely the dynamics of the process, in time, space, age, gender and, most of all, in motivation. For convenience, those registering for IAVCEI events in future (including COV9) can also use the opportunity to register for IAVCEI membership. It is hoped that increased revenue from these modest membership fees will provide IAVCEI with

additional degrees of freedom in supporting events and initiatives of central interest to the membership and importance to volcanology in general. Please sign up now or at your earliest convenience if you have not done so. Volcanology as a voice in national and international science policy at all levels needs a firm foundation and the investment will make itself felt manifold.

Thirdly, I would like to urge each and every one of you again to approach any member of the executive committee, including of course myself or our general secretary general on any issue related to the current or future working of IAVCEI. In particular, ideas for new commissions, with volunteers for running them are always welcome.

Finally, my thanks go out once again to Karoly Nemeth and his assistants for the preparation of yet another fact-filled issue of the IAVCEI Newsletter. His volunteer service for IAVCEI is an example to be followed.

Don B. Dingwell, Munich, 19 April, 2016. President of IAVCEI,

IAVCEI MEDALS 2015 PRAGUE 27th June 2015

IAVCEI WAGER MEDAL 2015

Citation Speech for Mattia de' Michieli Vitturi by Augusto Neri, Amanda Clarke, and Barry Voight; read by Augusto Neri.

Good evening ladies and gentlemen. For a mentor there can be no higher honour than to introduce a young colleague for such a significant award. I wish to warmly thank Barry Voight and Amanda Clarke for giving me today such a unique pleasure and honour. And today our pleasure is double. We proudly introduce Mattia de' Michieli Vitturi for the Wager Medal.

His brilliant work, energized by remarkable abilities in mathematics and a deep understanding of physics, is fundamentally important and is having significant impacts on volcanology.

The key skills that Mattia possesses are his creativity in using math and numerical schemes to seemingly effortlessly solve a wide-range of physical problems in volcanology that would otherwise not be easily addressed. We don't really see any limit to his ability to attack new problems in complex volcanic and natural systems. He is constantly pushing his own boundaries in terms of mathematical approaches, in order to understand volcanoes, hydrothermal systems, and other complex fluid systems. He has emerged as an international leader in developing original state-of-the-art multiphase flow codes to simulate explosive volcanic eruptions, involving some of the most difficult problems in geophysical fluid dynamics.

We offer a few examples in order to highlight Mattia's strengths as a researcher in this field.

Mattia developed original and innovative magma-flow models for two-phase flows in conduits of variable shape in order to quantify relationships between conduit geometry, magma ascent dynamics and the development of conduit lava plugs due to permeable gas loss. This approach was extended to show how sudden changes in chamber conditions affect eruption rate, and how a conduit plug controls eruption cyclicity. These codes were able to simultaneously deal with multiple flow regimes and realistic magma properties as was not possible before.

He was the main developer of a new immersed-boundary technique suited to compressible multiphase flows that enable description of interface conditions between the flow and irregular 2D and 3D topography. This was a key to reducing error in multiphase multiparticle flow codes associated with descriptions of topography, which are now able to simulate complicated eruption dynamics in fully 3D conditions. He also developed Lagrangian codes to predict dispersal of ballistics in Vulcanian-style eruptions, including the effects of the multiphase eruption column flow on ballistic trajectories. This had never before been attempted and his work represents the state-of-the-art on this complex process.

And yet another new project involves development of numerical integral models to study explosive volcanic eruptions on Earth and other planetary bodies. He coupled magma chamber dynamics with conduit ascent and explosive plume generation. This coupled approach required dealing with multiple flow regimes, entrainment, and buoyancy, critical for understanding the complex combined effects of reduced gravity and alternative atmospheric conditions on other planetary bodies. Mattia's new approach represents real progress and helps to improve understanding of Mars explosive volcanism and to better interpret new NASA datasets.

Mattia also contributed to the assessment of volcanic hazards during crises. His new lava flow code has been adopted by the Icelandic Meteorological Office for the Bardarbunga eruption. He also has developed new plume and ash dispersal models to quantify uncertainty in multiphase flow modeling, toward appreciation of risk implications.

In sum, Mattia is a brilliant young scientist, one of a very small group of global leaders in the field of mathematical modeling applied to volcanology, and one with a remarkably broad spectrum of contributions.

He is a fine man and superb colleague, and his remarkable and original research contributions to volcanology and volcanic risk mitigation make him a most worthy recipient of the 2015 Wager Medal.

Congratulations Mattia!

Augusto Neri, Amanda B Clarke and Barry Voight

Wager Medal Acceptance Speech by Mattia de' Michieli Vitturi

It is a great honour and an incredible surprise to me to receive this Award, for which I want to thank first of all my nominators, Ray Cas and the award committee.

The journey that led me to volcanology was quite unexpected, because ten years ago I had just finished my PhD at the Department of Mathematics of the University of Pisa, with a

thesis on the aerodynamic optimisation of sails for America's Cup boats under the supervision of Francois Beux, and the university had signed a big contract with a syndicate to conduct further research.

Unfortunately the main sponsor of the research was a bank and in a short time I have learned the meaning of the word "volatile". The budget exsolved and a brittle fragmentation cancelled the project before it could start.

But what was an initial disappointment turned out to be a great opportunity because my PhD advisor involved me in a collaboration with a fantastic group of people in Pisa for an innovative multi-disciplinary project to develop quantitative methods for making risk assessments at explosive-erupting volcanoes.

It was the EXPLORIS project, led by Augusto Neri at INGV Pisa, and for me it was the entrance in the fascinating world of volcanology and volcanologists, but also the entrance in the office I have shared for many years with the best colleagues I could have, Sara Barsotti and Tomaso Esposti Ongaro.

A few years after the Exploris project, I have been lucky to be awarded with a Marie Curie fellowship for the Magma Ascent Mathematical Modelling and Analysis (MAMMA) project, to spend two years at the School of Earth and Space Exploration at Arizona State University working with Amanda Clarke. Amanda, with Augusto, is the person who has taught me the most about volcanology.

I am also indebted to Amanda and Augusto because it is thanks to them that I met Barry Voight, who has always been incredibly supportive with my research, in particular for the works on the Soufriere Hills eruption.

After Exploris and MAMMA there are two other projects that have been particularly important to me and I would like to mention.

The first is the MeMoVolc project, led by Tim Druitt, who made possible a lot of collaborations with wonderful colleagues and funded a workshop I have organised with Margherita Polacci in Pisa on the investigation of Volcanic Conduit Processes by Integration of Experiments, Numerical Modelling and Observations.

The second one is the NEMOH Initial Training Network, coordinated by Paolo Papale that gave me opportunity to be involved with a new generation of great and enthusiastic volcanologists and to collaborate with Samantha Engwell for her post-doc at INGV in Pisa.

In addition to the colleagues I have mentioned so far, I would also like to recognize Ramon Arrowsmith, Mike Burton, Giuseppe La Spina and Antonio Spanu. I am proud to say that, when I look at all of the names I've mentioned, I do not see only a list of colleagues, but a fantastic group of friends, and it is with them that I want to share the honour and the joy for the Award I am receiving.

Finally, the last but biggest thanks go to my parents, to my wife Ilaria and to my son Federico that always supported me: GRAZIE!

Citation Speech for Tomaso Esposti Ongaro by Augusto Neri and Barry Voight; read by Augusto Neri.

Good evening again, ladies and gentlemen. For a mentor there can be no higher pleasure than to introduce a former student and current colleague for such a high honour—unless -- there are two of them! I wish to warmly thank again Barry Voight for giving me today such a unique opportunity. And so now we proudly introduce Tomaso Esposti Ongaro for the Wager Medal.

Tomaso has merited this award for several reasons:

- 1) He is a world-leader in computational fluid-dynamics volcanology modeling, and the main developer of multi-phase thermo-fluid dynamic codes that simulated -- for the first time -- the hugely complicated dynamics of eruption column ascent and collapse, and volcanic blasts, in transient and fully 3D conditions.
- 2) Using the codes written mainly by himself he has modeled enormously complicated pyroclastic density currents of various types and conducted meticulous validations with detailed field data and observations. These studies are unique and led to a much better understanding of the dynamics of these flows.
- 3) He has applied his models and original visualization techniques to volcanic crises, to the assessment of volcanic hazard, to aid government and civil defense decisions on risk with huge societal impact.

Tomaso is a physicist by initial training, and this influences his working methods. His interests are quite strongly focused in a few areas that are then examined in magnificent detail -- on multiphase flow models, compressible fluid-dynamics, volcanic jet and shock-wave generation, eruption columns and PDCs. Some experts in the numerical modeling have considered him the top researcher worldwide in the development of computational models of explosive eruptions. His work has certainly had a major impact on volcanology.

It was not so long ago that numerical fluid-dynamic modeling of explosive phenomena had almost exclusively involved the assumption of steady-state 1D homogeneous flow and had neglected crucial 3D features of the system, such as complex volcano topography and flow instabilities, and atmospheric conditions. Tomaso's new code enables 4D multi-particle dynamics – that is, 3D spatial coordinates plus time -- of volcanic eruptions to be explored.

One example of his extraordinary research is his study of the 1980 blast explosion at Mount St Helens that finally clarified the physics of that blast and made it possible to develop much-improved models for blast crisis mitigation worldwide. Another example is his research of PDCs on Montserrat, where

simulation results could be matched against observed building damage to yield the dynamic pressures required to generate specific grades of structural destruction. This information is critical for volcanic crisis mitigation, and indeed was used in this way by Tomaso for the 2007 crisis on Montserrat. Tomaso's contribution then had significant impact on advisory recommendations, on influencing the public via brilliant visualization graphics and simulation videos, and on implications of zoning decisions.

Similarly, Tomaso has applied his models to study probable eruptive scenarios at Vesuvius and Campi Flegrei for much-needed revisions in hazards planning and zoning, with his models being the cornerstone for innovative new quantitative approaches to treating building and human vulnerability. Similar work is well underway at other volcanoes worldwide.

As a top world-class scientist in fluid dynamics of explosive eruptions, Tomaso may have no peer in development of physical models for multiphase flow and shock dynamics. His research achievements are transformative, and he has extended his research to vital work aimed at mitigating important hazards and risk.

Thus Tomaso admirably fulfills the criterion of someone who has made genuinely profound high-impact contributions to volcanology at an early stage in his career. Of course we know him also as a fine gentleman and wonderful colleague, and are most proud to introduce him as the worthy recipient of the 2015 Wager Medal.

Congratulations Tomaso!

Augusto Neri and Barry Voight



2015 IAVCEI Wager Medalists and their Nominators [from left to right: Amanda Clarke (Nominator), Tomaso Esposti Ongaro (Wager Medal 2015), Mattia de' Michieli Vitturi (Wager Medal 2015) and Augusto Neri (Nominator)

Wager Medal Acceptance Speech by Tomaso Esposti Ongaro

Dear Augusto, thank you for your generous presentation.

Being nominated by Barry Voight for this prestigious award was already for me a big recognition.

With strong emotion I am here today to receive it.

It is for me a great honour, because the award comes from an association, IAVCEI that fully represents my vision of a scientific community.

This is thanks to all colleagues who tirelessly dedicate part of their time to coordinating activities, workshop organization, dissemination of scientific result. In particular, I would like to

acknowledge here our outgoing President Ray Cas for his engagement for a more inclusive and democratic IAVCEI. Thank you, Ray.

It is a great honour, because this award inscribes in a longstanding scientific tradition, but it also represents innovation and progress. Computational volcanology is nowadays a consolidated science and supercomputers are producing veritable "data eruptions". However, I would say luckily, there is still the need to be in close relationship with the volcano.

In the last years have had the unique opportunity to collaborate with scientists like Barry Voight, Mauro Rosi, Jean-Christophe Komorowski, Raffaello Cioni, Amanda Clarke, Peter Baxter, among many others... Without their passion, I am sure, I would not have become ... a volcanologist!

I am also particularly happy to be awarded this year with my colleague Mattia de' Michieli Vitturi. Working with Mattia and with Sara Barsotti has represented in these years a continuous stimulus, the motivation, a real pleasure and amuse.

Finally, receiving this award is a great honor, because I know that there are many scientists that would deserve it, and I will always think that I am not the best among them, but certainly I have had the best guidance and advice.

So, again, thank you Augusto and Barry, for your support and trust.

I finish by thanking my life partner, Elena, for her encouragement and my children, telling them that curiosity and obstinacy (just some!) are always rewarded.

I am proud to receive today the IAVCEI medal entitled to Professor Wager, I will do my best to merit it also for the future.

Thank you. *Tomaso Esposti Ongaro*

IAVCEI GEORGE WALKER AWARD 2015

Citation Speech for Anja Schmidt by Alan Robock

I first met Anja Schmidt at an EGU meeting in Vienna about six years ago when she was still a Ph.D. student, and I was very impressed by her work on the Laki eruption. Even then, it was clear that she would be a star in our field, and the letters I obtained to support her nomination for the Walker Award clearly validate that impression. Her combination of scholarship, government advising, conference organizing, and public communication in television shows is unrivaled for someone so early in her career. The letters from her supporters make this clear.

One reviewer said, "Her research is characterized by attention to detail, deep understanding of the underlying chemistry and physics, and an insatiable curiosity." Another said, "her quantitative, rigorous and holistic approach to the environmental impacts of volcanism is very much in the spirit of George Walker's pioneering work that brought a modern quantitative approach to physical volcanology."

Another quote was "I believe that we will look back in another 1-2 decades and see a step change in our understanding of the environmental impacts of volcanism in the present-day and throughout geological time and that Anja's work will have been at the heart of this." The same reviewer said, "She is a gifted observer of the natural world, a highly numerate scientist and, crucially, is able to bring disparate observations and data to bear on models that seek to reconstruct extremely complex atmospheric processes."

Here's another quote: "Anja is an excellent communicator and a fearless debater on scientific issues, engaging with both her scientific peers and the general public. One of her outstanding achievements is to have made contributions through bridging work in the fields of volcanology, modelling and atmospheric processes."

"Anja has a global reputation in the field of volcanic risk, which is quite amazing because much of this was developed while still a PhD student. Her expertise is truly crossdisciplinary and much needed to tackle the difficult questions of the effects of volcanic emission on climate and human/public health."

"She takes these [UK government advising] duties extremely seriously, devoting many hours to running simulations and presenting data in a way that may be easily understood by scientific lay people whilst also not playing down the uncertainties in the interpretations, which she presents in a remarkably succinct, meaningful and mature way."

"Anja is at the very top end of an international community of hundreds of researchers in her field."

So by now I am sure that you all understand why Anja Schmidt has been awarded the IAVCEI George Walker Award. Congratulations, Anja!

Alan Robock

George Walker Medal Acceptance Speech by Anja Schmidt

Thank you Alan for the very generous introduction. I am deeply honored, grateful and very proud to receive the George Walker Award today. Firstly, I'd like to thank my nominators and the IAVCEI award committee. Receiving this award really means a lot to me. Unfortunately, I never met George, but my research was heavily influenced by many people who knew him well, and who were taught and influenced by George. As an undergraduate student in Geology in Germany I read publications of Thor Thordarson, Steve Self and Steve Sparks and I knew that I wanted to pursue a career in Volcanology. Fast-forward a couple of years, reality was rather different in that I found myself picking and counting 20,000 foraminifers for my Masters thesis — in all fairness I also found a tephra layer in my sediment core samples! At heart I still wanted to work in the field of Volcanology.

I met Marge Wilson during my exchange year at the University of Leeds – and it was her enthusiasm and belief in my abilities that led me to write my own PhD project outline and to apply for a PhD Scholarship at the University of Leeds. Marge agreed to be my supervisor on my project aiming to use aerosol and climate models to investigate the impacts of flood basalt eruptions. Sheer chance meant that Ken Carslaw – a world-renowned professor in atmospheric sciences - saw my project proposal and became my

PhD advisor alongside Marge. Both, Marge and Ken were incredible supervisors, they were extremely supportive and ready and happy to learn new things themselves as we went along. In particular Ken was very patient educating me in atmospheric sciences. He constantly challenged and encouraged me to think outside the box and to combine two or even more disciplines no matter how impossible that felt to begin with.

At IAVCEI in 2008 for the first time I met Thor Thordarson and Alan Robock. Later that year I met Steve Self. They all became invaluable mentors and colleagues with whom I discuss climate modeling and flood basalt volcanism to this date. During the IAVCEI Laki fieldtrip led by Thor, he gave me feedback on a poster and a report I wrote on my Laki modeling work. It is fair to say that I owe him all I know about physical volcanology, the historical records of the 1780s and field observations.

During the IAVCEI Laki fieldtrip, I also caught the Iceland bug and then in March 2010 an eruption began at the Fimmvörduhals pass. I knew I had to go, so I emailed Thor asking whether he can take me there – he said 'yes' straightaway. Observing and learning about Fimmvörduhals after spending almost 2 years in front of a computer changed my attitude to my own work and I began to realise what atmospheric models may be able to contribute to solving problems in volcanology. By the time I returned to Leeds, Eyjafjallajökull erupted, which very much put the impacts of Icelandic volcanic eruptions at center stage. I very much consider this eruption and the recent eruption at Holuhraun the 'lucky moments' in my career. After Eyjafjallajökull, I started working with policy-makers and the UK government quantifying the hazards and risks from Icelandic flood lava eruptions like Laki.

Over the years, I was fortunate enough to meet and work with many influential, brilliant, and supportive scientists and they all made their mark on my career such as: Tamsin Mather, Marie Edmonds, Claire Witham, Sue Loughlin, Susan Solomon, Evgenia Ilyinskaya, Costanza Bonadonna, Steve Sparks, Paul Wignall, Piers Forster, Hans Graf, Peter Baxter, Fred Prata, Clive Oppenheimer, Mike Mills, Matthew Hort, Armann Höskuldsson and John Stevenson.

I would also like to thank the School of Earth and Environment at the University of Leeds— the support I receive and the belief and trust they put in me means a lot to me. George also did his PhD in Leeds, I found photos showing him inspecting the same caves in the Yorkshire Dales I go to on weekends. I am incredibly proud to receive this award—I would not have received it without those people who were taught by George teaching and believing in me! I would like to encourage early career scientists to work across disciplines as challenging as it is, it's incredibly exciting as well as rewarding and I truly believe that some of the best work is done in collaboration and across disciplines.

Before I end, I would like to also sincerely thank my parents and my partner Kay, who are all here with me today. Meinen Eltern, Elvira und Peter gebührt besonderer Dank für ihre andauernde Unterstützung – Danke, dass ihr heute hier seid! By now, my partner Kay has supported me for more than a decade in pursuing my dreams – thanks for everything, Kay.

Thank you once again for presenting me with this award – it's a great honour!

Anja Schmidt

ADVANCES IN VOLCANOLOGY

Springer Book Series

Editorial Manager for *Advances in Volcanology* is now fully operational. Book chapters from books accepted to be included in the book series now can be uploaded through the Editorial Manager via the following link:

http://www.editorialmanager.com/avol

The first volume of the AiV book series – **Volcanic lakes** – has been published and can be accessed as electronic book or printed volume via the following link:

http://www.springer.com/gp/book/9783642368325

New book proposals are welcome. Please send your proposal to discuss your ideas to Johanna Schwarz (Johanna.Schwarz@springer.com) and Karoly Nemeth (k.nemeth@massey.ac.nz) and we can provide some advice to succeed your book.

Karoly Nemeth Series Editor – Advances in Volcanology

CALL FOR PAPERS

Frontiers in Earth Science, section Volcanology
Research Topic - Volcanic hazard assessment: rising to the challenges of data and model integration

Dear Colleagues,

In collaboration with **Frontiers in Earth Science**, section **Volcanology**, we are organizing a Research Topic entitled *Volcanic hazard assessment: rising to the challenges of data and model integration*. We would like to encourage you to contribute to this topic!

Your hosts for this research topic are **Jan Lindsay**, **Eliza Calder** and **Jacopo Selva**.

We already have 10 contributors, and hope to get a few more expressions of interest before the end of February. We will be in touch with contributing authors in March with more details.

Topic Description:

Volcanoes are complex systems that can produce a wide variety of hazardous phenomena both during and after actual eruptions, including pyroclastic density currents, lava flows, lahars, debris avalanches, ballistic ejecta, ash plumes and ash fall, but also ground shaking from earthquakes, inundation via tsunami, landslides, gas emissions, flooding and fires. Furthermore, there is a diverse array of possible approaches to hazard assessment. Hazard assessment may focus on one or more of these phenomena for a specific volcano, or one or more of these phenomena for a specific region or city. Assessment may be based solely on geological investigations, or deterministic or probabilistic modelling, or a combination. Time frames for

volcanic hazard analyses can also vary, from long-term (years), to short-term /rapid hazard assessments after volcanic unrest has initiated (weeks, days or less). The quality of data used in every step of the hazard assessment process will vary, and thus uncertainties associated with data also need to be accounted for, from uncertainties in the past eruptive behaviour at a particular volcano through to uncertainties in future wind patterns. The difference strands of information available for any given assessment are thus diverse in terms of origin and type of data, methodologies involved in their generation and the associated uncertainties. Although integration of these respective strands presents both scientific and methodological challenges for us, particularly if the output of the hazard assessment is to be a single unified product, such as a hazard map, when accomplished an integrated approach will lead to vastly improved characterististion of the hazard than using any single approach alone.

With this Frontiers Research Topic we thus encourage contributions related to approaches used for the integration of data and/or information from different hazards, or from different methods, or both. Have you produced a volcanic hazard map that utilizes novel approaches for combining results of different models of different hazards? Have you combined results from a number of different models of the same hazard in a hazard assessment (multi-models)? Have you developed a method to capture uncertainties in geological data that is used in or propagated into volcanic hazard assessment? Have you integrated deterministic and probabilistic data into one end product? Have you developed a computer platform for hazard assessment that can integrate different types of data with different uncertainties? If these sound like the challenges you are tackling then you might like to contribute to this collection of papers. Our aim is to trigger discussion on this challenging topic and spark novel approaches to hazard data integration for future research.

You can also visit the homepage we have created on the Frontiers website, which defines the focus of the topic, and where all published articles will appear.

 $http://frontiers in.org/Volcanology/research topics/Volcanic_hazar d_assessment_rising_to_the_challenges_of_data_and_model_int egration/4505$

Please note the submission deadline for this Research Topic: **Dec 31, 2016**

If you are interested in contributing, please contact Jan Lindsay j.lindsay@auckland.ac.nz

Best wishes

Jan Lindsay

The University of Auckland

IAS SUPPORT

6th International Maar Conference, Changchun, China

The 6th International Maar Conference will be held between 30 July and 3 August 2016 in Changchun, NE China.

Detailed information about the conference can be downloaded from the conference website:

$\frac{\text{http://www.igg.cas.cn/xwzx/xshd/201506/P02015061552176784}}{8661.pdf}$

Please note that the International Association of Sedimentologists allocated a pool of funding for potential participants to the 6IMC who will present research that is strongly related to sedimentology and sedimentary processes. As the conference will have a strong focus on paleoclimatology, limnology and crater lake evolution we would encourage those potential participants considered to be early career researchers or plan to attend from a country far from China to consider to apply for the IAS Grant.

IAS Grant can be applied for via the following link where you can find detailed description of the conditions.

https://www.sedimentologists.org/grants

Deadline to apply for the IAS Grant to attend on the 6IMC is 15 May 2016

Karoly Nemeth Massey University, New Zealand

WORKSHOP REPORT

The 2015 International School of Volcanology and Quaternary Geology entitled "Volcanic growth and landscape response: Volcanic processes and basin sedimentation" took place in Lipari, Aeolian Islands (Italy) from October 5th to 11th under the auspices and financial support of IAVCEI.

It was one of the annual activities carried out regularly by the Italian Association of Vulcanology (AIV), this year organized jointly with the Italian Association for the study of the Quaternary (AIQUA) and kindly hosted by the Regional Archaeological Museum of Lipari.



Fig. 1. Vulcano fieldtrip. a) View of the crater feeding the 1888-90 AD eruption of La Fossa cone and relative loose dark pyroclastic deposits and numerous bread-crust bombs. b) The active hydrothermal system along the northern side of the active crater of La Fossa cone.

The school was attended by 25 young researchers (graduate students, PhDs, post-docs) from different parts of the world, with different experiences and skills in the fields of Volcanology and Quaternary sciences.





Fig. 2. Lipari fieldtrips. a) Panoramic view of the N-S aligned cones of Monte Mazzacaruso, Timpone Pataso and Timpone Ospedale, representing the older stages of development of the island. Their volcanic slopes are cut by marine terraces relative to the Marine Isotope Stage 5 (visible in the background). b) The school participants working on description and interpretation of pyroclastic deposits from fallout and dilute pyroclastic density currents related to the Monte Guardia activity.

The participants had the opportunity to improve their knowledge on the evolution of volcanic systems as the result of competing phases of construction and dismantling and the interplay between eruptive and erosive processes. The Aeolian Islands were chosen as a perfect case study for this topic since they are characterized by a large variety of emerged and submerged volcanoes with effusive-explosive eruptions and different eruptive styles under the influence of regional tectonic trends, alternating with frequent volcano-instability events (i.e. lateral collapses) and volcano-tectonic activity (i.e. formation of calderas), and marine terrace deposits testifying for changes in sea level occurred at various times since Marine Isotope Stage 5. Both eruptive and erosional processes supply material for basin sedimentation, which was analyzed through primary and reworking volcaniclastic deposition at local and regional scale down to the Tyrrhenian abyssal plain. In addition, the role of deposition of volcanic ash over large areas was debated in the light of volcanic hazard and as a powerful tool for inter-archives correlations.

Class lectures by Prof. P. Dellino and R. Sulpizio (University of Bari), G. Zanchetta (University of Pisa), M. Anzidei (INGV Rome), F. Lucchi and C. Romagnoli (University of Bologna), M.

Di Vito (INGV Naples), A. Costa (INGV Bologna), P. Albert (Royal Holloway University London) mainly focused on the most important features of volcanic activity and related deposits, and the characteristics of basin sedimentation and widespread dispersal of pyroclastic deposits around the Aeolian Islands. The lectures were accompanied by three days of geological fieldtrips on Vulcano, Lipari and Stromboli, promoting discussions among all the participants. On Vulcano, the focus was on the deposits produced by the typical Vulcanian explosive activity, the present summit hydrothermal field and the dynamics of sedimentation and erosion in the active La Fossa cone and caldera system. Fieldtrips on Lipari were mostly focused on the factors controlling the transition of eruptive style from explosive to effusive, the dynamics of viscous lava flows (like the Rocche Rosse obsidian lavas), the influence of the pre-depositional topography on the distribution and depositional features of pyroclastic density currents, and the main criteria of correlation of tephra layers.

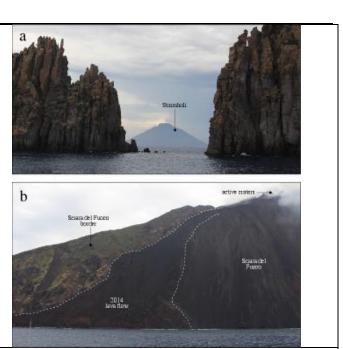


Fig. 3. Stromboli fieldtrip. a) View of the Stromboli volcano from the adjacent island of Panarea. In the foreground, the foliated lavas of the Basiluzzo dome. b) The Sciara del Fuoco collapse cutting the NW flank of Stromboli, and the 2014 lava flow fed by the summit active craters.

On Stromboli, the focus was on the Sciara del Fuoco collapse as a spectacular example of the building up of a volcano through phases of eruptive activity interrupted by recurrent lateral collapses and flank erosion, together with the 2014 lava flow and lava delta and some of the typical Strombolian explosions from the active craters located near the headwall of the collapse.

On behalf of the organizers

Federico Lucchi

REPORT ON THE FIRST ENCOUNTER OF LATIN AMERICAN VOLCANO

OBSERVATORIES 12-13 OCTOBER 2015 AREQUIPA, PERÚ

The First Encounter of Latin American Volcano Observatories (1er Encuentro de Observatorios Vulcanológicos de Latinoamérica) took place on October 12-13, 2015, at the Hotel Libertador, in Arequipa, Perú. The event was the first of its kind and was organized by the Latin American Association of Volcanology (ALVO), the Instituto Geológico, Minero y Metalúrgico (INGEMMET), and the Observatorio Vulcanólogico INGEMMET (OVI), in Perú, with the auspices of IAVCEI, the USGS, and WOVO. The main objectives of this event were to promote scientific and technical cooperation among the observatories and institutions, to share the most important advances and innovations achieved in recent years, to share experiences in risk management, to discuss the challenges faced by the observatories as well as limitations and difficulties, and to explore new and better ways for technical, scientific and organizational collaboration. Sixty eight participants from 23 institutions in 8 Latin American countries (Perú, Chile, Mexico, Colombia, Costa Rica, Guatemala, Argentina, and Puerto Rico) met in Perú, and participated in 4 sessions during the 2 days of activities. The list of participants included the directors and coordinators of observatories and institutions that conduct volcano monitoring. Representatives from the USGS and France shared their experiences in volcano monitoring, hazard management, communication, and also on different collaborative projects in Latin America.



Figure 1 Welcome dinner (Photo by Jersy Marino).

The event initiated with the opening ceremony, where representatives from INGEMMET, ALVO, and the Geophysical Institute of Perú welcomed the participants and gave an introduction to the activities that would take place. A keynote presentation by Dr. Hugo Delgado Granados (First President of ALVO and one of the organizers of the event) focused on the state of the volcano monitoring systems in different countries of Latin America. Dr. Delgado Granados summarized the results obtained from a questionnaire, which was completed by representatives of 17 countries in 2012. This included a SWAT analysis, of which the main threats identified in our institutions were related to economic and technological factors. The main weaknesses reported were related to social factors. A database containing information on instrumentation of all sort of monitoring techniques, laboratory facilities and personnel from observatories, universities and research entities in Latin America was created

with financial support of IAVCEI and can be accessed through a link at its website or directly from the University of Mexico's server (http://132.248.182.158/glovoremid/) and, as part of the outcomes of this meeting, it was decided to be updated.



Figure 2 Opening ceremony. From left to right: Dr. Jose Luis Palma (President of ALVO), Dr. Lizzette A. Rodriguez (Vice-president of ALVO and Member of IAVCEI's Executive Committee), Eng. Susana Vilca Achata (Director of INGEMMET), Jose Macharé Ordóñez (Scientific Director of the Instituto Geofisico del Perú-IGP), and Lionel Fidel Smoll (Director of OVI). Photo by Jersy Marino.



Figure 3 Keynote presentation by Dr. Hugo Delgado Granados (Photo by Jersy Marino).

The first session included presentations made by representatives from different volcano observatories or institutions involved in volcano monitoring, who described several of the recent eruptions or volcanic crises in the region: Villarrica 2015, Calbuco 2015, Ubinas 2013-14, Sabancaya 2014-15, Fuego 2012 and 2015, Popocatepetl 2000-2015, Nevado del Ruiz, Arenal 1995-2000, Turrialba 2010-2015, Nevado del Huila, and Colima 2014-2015.

It was clear from the different discussions that each country has different strengths, based mainly on the available resources. The main outcome of this discussion was that, even sometimes with scarce resources, the different eruptive events and crises were managed efficiently and lives were saved. Another outcome was that expertise of Latin American volcanologists has grown in a

way that most observatories have faced important eruptive crises by their own with few or no external aid.



Figure 4 Dr. Carlos Cardona, Technical Director of the Observatorio Vulcanológico de los Andes del Sur (OVDAS-SERNAGEOMIN), Chile, during the sessions on the first day of the meeting (Photo by Jersy Marino).

The second session included two presentations on scientific and technical cooperation, offered by Dr. Jean-Luc Le Pennec (Institut de Recherche pour le Développement – IRD) and by Dr. Jeffrey Marso (Volcano Disaster Assistance Program-VDAP/USGS). They discussed different examples of cooperation and technical assistance by the IRD in Latin America and the participation of VDAP (USGS) during recent Latin American eruptions, respectively.



Figure 5 Eng. Luisa Macedo presenting on the projects for community involvement at OVI-INGEMMET (Photo by Jersy Marino).

The third session was related to the activities developed by the volcano monitoring institutions on education and dissemination. Eng. Luisa Macedo (OVI-INGEMMET) described different projects related to communication with communities to reduce volcanic risk in southern Perú. Dr. Carolyn Driedger (Cascades Volcano Observatory, USGS) presented on the hazard identification of stakeholders communication.



Figure 6 Participants during the group session on the second day of the meeting (Photo courtesy of ALVO).



Figure 7 One of the group discussions (Photo by Jersy Marino).



Figure 8 Group session on the second day of the meeting (Photo by Jersy Marino).

The second day of the event was focused on the discussion of the advances and obstacles the Latin American volcano monitoring institutions experience. The day started with a keynote presentation by Dr. José Luis Palma, President of the Latin American Association of Volcanology (ALVO). He discussed the objectives, activities and future perspectives of the association, especially related to continuing the work started in this meeting and working towards the creation of a Latin American Network of Institutions of Volcano Monitoring in the near future.

All the participants received a questionnaire at the end of the first day of the event, which covered four important aspects of volcanic risk and the advances and limitations faced by the groups involved: technical aspects of the observatories and institutions involved, relationship with the authorities, relationship with the

media, and relationship with society. The results of the questionnaire will be used to update the 2012 database, and included aspects that were missing from the first questionnaire, like legal aspects. The participants were expected to complete the questionnaire in order to prepare for the group discussions on the second day. The participants were divided in 5 groups, led by a moderator, and discussed the main topics of the questionnaire, using examples from their own experiences. The groups were diverse, including participants from different countries and institutions. On this first phase of the session, a facilitator had the responsibility of clarifying questions related to the questionnaire and the group dynamics, as well as making sure that the discussion moved forward. A person was selected from each group to summarize the opinions and conclusions, and to present them to all the participants at the end of the session. The group discussions lasted approximately two hours and were followed by a plenary session focused on the presentation of the preliminary results from the questionnaire and the results from each of the groups' discussions.



Figure 9 Group of participants visiting the facilities of OVI, on the second day of the event (Photo courtesy of ALVO).

The last part of the second day session was a general discussion among all the participants, including the results from the group discussions and everything that was presented during the event. This discussion also included the possible creation of the Latin American Network of Institutions of Volcano Monitoring. Many important points were discussed and a number of conclusions were reached. With respect to the creation of the network, although no one was against the idea in principle, most participants agreed that as a community we should start by organizing ourselves in our countries and by talking about the idea with the different institutions and governments. This is in order to identify the conditions and procedures that have to be complied in order to organize ourselves in an international level. It was clear that there are good intentions to cooperate among the different observatories and institutions, in terms of knowledge, experience, and equipment maintenance, among others. The participants also agreed that it is important for the community to identify the strengths and weaknesses of the institutions, in terms of specialists, to improve our capacity to collaborate with other groups. Another important conclusion was that as a community we need to continue to work on our collaborations with groups in other countries (Latin American and others), especially for training and for postgraduate studies, mainly because in many of our countries these opportunities are limited. It was also agreed that it is essential that all collaborations are of benefit, not only for the scientists that conduct research in the countries, but also for the local scientists and institutions/observatories.



Figure 10 Participants during the second day of the event (Photo by Jersy Marino).

This First Encounter of Latin American Volcano Observatories was a success and all the objectives were met. All the participants agreed that this type of event is essential for the development and improvement of our capabilities for volcano hazard management. The event concluded with a closing ceremony in which there were three short messages. Dr. Jose Luis Palma (President of ALVO) thanked the participation and reminded everyone about the Cities on Volcanoes conference that will take place in Puerto Varas, Chile, in 2016, and where we expect the participation of many Latin American volcanologists and students. The event will also serve as venue for the General Assembly of ALVO. Dr. Lizzette A. Rodriguez (Member of the IAVCEI Executive Committee) gave a message from Dr. Donald Dingwell, President of IAVCEI, in which he expressed his encouragement of this type of initiative, because of its reach, internationality, and impact. Eng. Susana Vilca (President of INGEMMET's Board) thanked everyone for their participation and officially concluded the event.

Lizzette Rodrigez, Puerto Rico

REPORT ON THE INTERNATIONAL WORKSHOP on Methods for the geochemical monitoring of fluids from active volcanoes and geothermal systems in the Andes: the Copahue and Domuyo volcanic complexes (Argentina)

On the 20th February, 2016, the workshop participants arrived at Caviahue village and joined the participants of the International Summer School of Volcanology, organized by the Universidad Nacional of Rio Negro (Argentina) that started on 15th February. The 46 workshop participant came from Argentina, Chile, Brasil, Mexico, Italy and Germany (see the list reported below). In the evening, a brief meeting was organized at the Conference

In the evening, a brief meeting was organized at the Conference Hall in Caviahue village to show the contents and the program of the workshop.



Copahue Volcano. View from the Anfiteatro area.

On the 21st February, the first fieldtrip at the thermal emissions "Las Maquinas" and "Las Maquinitas" took place. The ascension to the Copahue summit crater, scheduled on this day, was canceled due to risk related to the strong eruptive activity of the volcano.



Meeting at the Conference Hall in Caviahue village.

During this fieldtrip, the participants had the opportunity to collect gas samples from fumarolic vent,s having an outlet temperature up to 120 °C, and to test portable equipment for the measurement of fumarolic gases in air (MultiGas).

In the evening, a second meeting at the Conference Hall in Caviahue village was carried out to show details about theoretical aspects of the techniques for gas measurements used in the field.

On the 22nd February, the group moved to Copahue village to start the fieldtrip to the Anfiteatro thermal area for a second session of gas sampling. Most participants had the opportunity to experience the direct sampling technique and to use instruments (miniDoas) for remote sensing measurements of the Copahue plume from the spectacular viewpoint of the Anfiteatro external rim.



Thermal emission Las Maquinas.

the impressive thermal installations, the biggest in Latin America. During the visit, the technique for the measurement of diffuse gas fluxes from the soil was shown to the participants.



A wonderful view of the volcanic plume of Copahue from the Anfiteatro rim.



Gas sampling at Las Maquinitas.



The "gas sampling" group.



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The second part of the day was spent to visit the Copahue Thermal Complex, where the participants had the opportunity to appreciate

On the 23rd February, the group moved to Copahue Village, i.e. the starting point to the Chancho Co thermal emissions (2 hrs walking), in the Chilean territory.

In the night, the participants had a nice dinner at the Nevado Hotel to celebrate the end of the first part of the workshop (and the birthday of Sergio Calabrese), coinciding with the end of the International Summer School.

On the 24th February, 25 participants of the original workshop group departed from Caviahue village to Varvarco village, in the surroundings of the Domuyo volcanic complex, for the second part of the workshop. The entire day was spent to travel.



Part of the group on the way back from Chancho Co thermal area.

Covunco); a second group focused on gas sampling from Los Tachos, Aguas Calientes and Las Olletas thermal manifestations.



Measurement of the flow rate of the Varvarco river.



Happy birthday, Sergio!



Workshop participants at Caviahue village.

On the 25th February, the participants divided in two groups: a first group carried out flow measurements of the Varvarco river and some tributaries (Atreuco, Ailinco, Aguas Termales,



Gas sampling at the Las Olletas thermal emissions.

On the 26th February, the whole group ascended to the Bramadora fumarolic field (3,300 m a.s.l.), at the foothill of the Domuyo dome. The group spent 5 hours to reach the fumaroles. A small group stopped on the way to collect rock (basalts, ignimbrite) samples. The maximum outlet temperature of the fumaroles, characterized by a very strong flux (bramar is a Spanish word meaning "to roar"), was up to 130 °C. Two hours were necessary to collect gas samples and 3 hours more to climb down to the starting point.

The 27th February was the last day of the workshop. The group visited the Humazo thermal emissions, an area were a phreatic explosion recently occurred. Gas sampling from fumaroles was carried out. At the end of the day, the group celebrated the end of the workshop at the Horse Festival in Varvarco.



The giant Bramadora fumarole.



The "gas sampling" group at Humazo.

On the 28th February, most participants travelled to Neuquen to take buses and flights to their final destination.

Technical remarks:

No inscription fee was requested to the participants, who contributed to the costs of the fieldtrip that were nor covered by the DCO and IAVCEI sponsors. Accommodation at Caviahue village was in apartments (each apartment hosted 5-6 participants) at Nevado Hotel. Accommodation at Varvarco was in apartments (each apartment hosted 5-6 participants) of the local municipality. Transfer from Caviahue to Varvarco and from the apartments to the starting points of the daily fieldtrips were carried out using 3 rented cars and 2 cars gently provided by the Universidad de Rio Negro and the Universidad de Buenos Aires, which are warmly thanked for their support.

List of Participants

	Name	Institution	
1	Sara Di Salvo	Università di Firenze (Italy)	
2	lacopo Fantozzi	Università di Firenze (Italy)	
3	Riccardo Avanzinelli	Università di Firenze (Italy)	
4	Franco Tassi	Università di Firenze (Italy)	
5	Francesco Capecchiacci	Università di Firenze (Italy)	
6	Chiara Caponi	Università di Firenze (Italy)	
7	Andrea Ricci	Università di Bologna (Italy)	
8	Matteo Lelli	Matteo Lelli CNR-IGG, Pisa (Italy)	
9	Giovanni Chiodini	Giovanni Chiodini INGV, Bologna (Italy)	
10	Sergio Calabrese Università di Palermo (Italy)		
11	Kiki kiriadoloupolous	Università di Palermo (Italy)	
12	Nicole Bobrowski	University of Meinz (Germany)	
13	Hernan Barcelona	Univerisidad de Rio Negro (Argentina)	
14			
15			
		Univerisidad de Rio Negro (Argentina)	
17	Jimena Presa	Univerisidad de Rio Negro (Argentina)	
18	Mariano Agusto	Universidad de Buenos Aires (Argentina)	
19			
20	Juliana Szentivanyi	Universidad de Buenos Aires (Argentina)	
21	Pablo Forino	Universidad de Buenos Aires (Argentina)	
22	Diego Sebastian Palma Universidad La Plata (Argentina)		
23	Octavio Palma	Universidad La Plata (Argentina)	
24	Yesica Peralta Arnold (solo workshop)	Universidad de Jujuy (Argentina)	
25			
23			
	participants only at Caviahue		
26	Niccolò Galfo	Università di Firenze (Italy)	
27	Zara Franceschini	Università di Firenze (Italy)	
28	Giachi Simone	Università di Firenze (Italy)	
29	Paride Bigazzi	Università di Firenze (Italy)	
30	Maria Florencia Peralta	Universidad de Comahue (Argentina)	
31	Paula Cassemiro	Universidad de Comahue (Argentina)	
32	Juan Mendiberri	Universidad de Comahue (Argentina)	
33	María Laura Yañez	Secretaría de Minería de Río Negro (Argentina)	
34	Tatiana Sanz	Universidad de San Juan (Argentina)	
35	Mayra Alexandra Ortega Gonzáles	INGEMMET (Argentina)	
36	Gabriela Jara	SERNAGEOMIN (Argentina)	
37	Marcelo Raponi	CCEILAP-CITEDEF, Argentina	
38	Catalina Balbis	Univerisidad de Cordoba (Argentina)	
39	Florencia Rosas Sotomayor	CEGA. Chile	
40	Gabriela Velásquez	Observatorio vulcanologico de los andes del sur (Chile)	
41	Sofia Navas	Universidad Católica del Norte (Chile)	
42	Carolina Geoffroy	Universidad de Chile (Chile)	
43	Eveling Espinoza	UNAM (Mexico)	
44	Natália Gauer Pasqualon	Universidade Federal do Rio Grande do Sul (Brasil)	
45	Elainy Martins	Universidad de Brasilia (Brasil)	

The scientific and organizing committee:

Franco Tassi (Università di Firenze, Italy)

Caterina Liccioli (Universidad de Buenos Aires, UBA, Argentina)

Alberto Caselli (Universidad Nacional de Rio Negro, UNRN, Argentina)

Mariano Agusto (Universidad de Buenos Aires, UBA, Argentina) Nicole Bobrowski (University of Mainz, Germany)

IUGG Union Outreach Committee established

The ad-hoc Outreach Committee was established by the IUGG Executive Committee in July 2015 in Prague, and its membership was approved by the Bureau in January 2016. The Committee is set up to organize and manage IUGG's communication, promotion, public information and general outreach activities.

Namely:

- To promote the recognition and demonstrate the utility of Earth and space sciences in general, and IUGG in particular, to other organizations, industry, governments and the public at large, with special attention to the younger generations.
- To develop liaisons with relevant national and international unions and associations, professional societies, and other international and intergovernmental bodies.
- To help develop lasting relations with industry and national and regional geo/space agencies by developing joint R&D and other programs and projects.
- To provide advice to the Union on options and actions by which IUGG could become more attractive to, and increase the participation of, young scientists.

Appropriate strategies will be developed for targeting students, early career scientists, scientists in developing countries, government agencies, private companies, decision makers, and international organizations. This can be achieved through:

- Promoting collaborations with industry partners, as well as their participation in IUGG activities.
- Promoting and supporting the activities of the IUGG early career scientists network.
- Soliciting support from potential sponsors (private industry, system manufacturers, government agencies, foundations, etc.) for promotional projects and activities.
- Providing advice on the development of the Union's newsletter, web site, stands, banners, brochures, leaflets, videos and other promotional materials for exhibitions, conferences and for wider distribution.
- Identifying, collecting, evaluating and disseminating information on available internet resources useful for promotion of, and education in, geodesy and geophysics.
- Identifying opportunities for developing and participating in joint outreach activities with sister societies and international scientific and professional organizations.

The IUGG President Michael Sideris appointed the following people to the Outreach Committee:

Kathy Whaler, CHAIR, IUGG Vice President (UK) Val Byfield (UK) Julia Keller (Germany) Franz Kuglitsch, ex-officio (Germany) Sanjay Limaye (USA/India) Karoly Nemeth (New Zealand) Greig Paterson (China)

If you have any idea or plan to have IAVCEI involved in the IUGG Outreach Programs please contact **Karoly Nemeth** via **k.nemeth@massey.ac.nz**

IAVCEI Early-Career Network call for Portland 2017 meeting

Dear Early-Career volcano researchers,

As you are no doubt aware, the IAVCEI 2017 General Assembly will be held in Portland, Oregon, USA, during August 14-18 (see http://iavcei2017.org/ for more information). The conference organizers are planning a full slate of activities for Early Career scientists (broadly defined as students and post-docs, but also potentially including newly hired researchers and professors), including both social and professional development events, but we need your help to decide on discussion topics of the greatest importance. What is it that the early-career community cares the most about? Subjects might include getting published, having an impact with your research, dealing with the media (especially during a crisis), applying for faculty positions, advising students, career guidance (academia versus industry versus government science), and so forth.

With this in mind, we would like to hear opinions from early-career scientists in the volcanological community on the following questions:

- 1) If you were to attend a pre-meeting workshop (either a day or a half-day session), what topic would be most useful?
- 2) If you were to attend an evening event that included the

opportunity to meet with established scientists to discuss a variety of topics (formatted as a "speed-dating" style of event), what 5-10 topics should be represented?

3) If a panel discussion were to be organized, what topic should the panel focus on?

Please send responses to Mike Poland (mpoland@usgs.gov), Charlotte Vye-Brown (cvye@bgs.ac.uk) or Sam Poppe (sam35poppe@gmail.com). Thanks very much for your time—your responses are critical for ensuring that the IAVCEI 2017 General Assembly will be the best possible forum for Early Career scientists!

Thanks,

Mike Poland Charlotte Vye-Brown Sam Poppe IAVCEI 2017 Early Career Committee

CALL FOR NOMINATIONS FOR HOSTING COV10 IN 2018

Dear Colleagues,

With Cities on Volcanoes 9 to be held later this year in Chile (http://www.citiesonvolcanoes9.com/), the Cities and Volcanoes Commission is pleased to invite nominations for the hosting of Cities on Volcanoes 10.

Please read through the details and purpose below and consider hosting the next CoV meeting. Note the important dates at the bottom.

 $15\ \mathrm{June}\ 2016$ - Deadline for nominations for hosting CoV10 in 2018

15 August 2016 - Deadline for written proposals for hosting CoV10 in 2018

To have a proposal considered, a nomination must have been received by 15 June 2016

Email proposals to the 'Commission Leader' via the 'contact' link at http://cav.volcano.info/

Background: To date there have been eight "Cities on Volcanoes" meetings. The purpose of these meetings is to bring together volcanologists, city authorities, sociologists, psychologists, emergency managers, economists and city planners to evaluate volcanic crises preparedness and management in cities and densely populated areas.

In 1995 the "Volcanoes in Towns" meeting was held in Rome, Italy. From that developed the first "Cities on Volcanoes", held in June-July 1998 in Rome and Naples, Italy with over 100 people attending. This was followed by the second in February 2001 in Auckland, New Zealand; the third in Hilo, USA in July 2003; the fourth in Quito, Ecuador in January 2006; the fifth in Shimabara, Japan in November 2007; the sixth in May 2010 in Tenerife,

Spain; the seventh in Colima, Mexico, November 2012; and the most recent 9-13 September 2014, in Yogyakarta, Indonesia. The ninth is planned for Puerto Varas, Chile November 20-25, 2016.

Future Planning:

- CoV meetings are required to have a core focus on the links between volcanoes and society especially cities. Community and disaster/emergency management participants are to be actively encouraged to participate and supported where possible.
- Future "Cities on Volcanoes" meetings will be evenly spaced between the IAVCEI General Assembly and IUGG meetings; they will continue to be held approximately every two years late in the year; venues for "Cities on Volcanoes" meetings will change for each successive meeting
- The venue for the tenth "Cities on Volcanoes" meeting to be held in 2018 will be selected by a Committee of the Cities and Volcanoes Commission.
- Brief nominations for hosting this meeting will close on 15 June 2016.
- Formal written proposals arising from these nominations are to be submitted by 15 August 2016 and must outline briefly: dates, venue for conference, locality (e.g. volcano characteristics, activity, exposed population, vulnerability, etc.), transport options for international attendees, strategy to focus on cities and on volcanic risk mitigation, session/program ideas (e.g. session topics, plenary speakers, field trips), arrangements for logistics and handling of these by the host country, potential sponsorship, preliminary estimates of the registration fees.
- The Commission Executive Committee will consider the proposals and may seek further details from the applicants.
- The venue will be decided by a formal vote of the Executive Committee.
- The Commission will announce the next venue on 25 November 2016 at the Cities on Volcanoes 9 conference.
- The Commission will assist the hosting country where possible but organisational and financial responsibility rests with the hosts.

Important dates:

important dates.			
7 March 2016	Formal call for nominations for hosting CoV10		
15 June 2016	Deadline for nominations for hosting CoV10		
15 Aug 2016	Deadline for written proposals for hosting		
CoV10			
1 Sept 2016	Deadline for further information requests by		
Commission			
30 Sept 2016	Deadline for further information submissions		
20-25 Nov 2016	Meeting of the executive committee of the		
Cities and Volcanoes Commission to decide venue of CoV10			
25 Nov 2016	Venue for CoV10 announced		

For further information please contact

Graham Leonard, G.Leonard@gns.cri.nz

FUTURE EVENTS for IAVCEI member's interest

2016 Goldschmidt Conference Yokohama, Japan

 $26 \text{ Jun } 2016 \rightarrow 01 \text{ Jul } 2016$

Web: http://www.geochemsoc.org/programs/goldschmidtconference/

SCAR 2016 Open Science Conference

Kuala Lumpur, Malaysia from 22-26 August 2016

S19. Antarctic volcanism in space & time – magmatic, tectonic and palaeoenvironmental aspects & linkages

Web: http://www.scar.org/ssg/geosciences/antvolc

Web: http://www.scar2016.com

Cities on Volcanoes 9 Puerto Varas, Chile

20-25 November 2016

Web

 $\frac{http://www.sernageomin.cl/pdf/cities/Cities%20on%20Volcanoes%209%20(Puerto%20Varas,%20Chile)%20First%20Circular.pdf}{}$

The conference is supported by the IAVCEI Commission of Cities and Volcanoes

6th International Maar Conference

Changchun City, China

28 July – 6 August 2016 The conference is supported by the IAVCEI Commissions on Monogenetic Volcanism, Volcanic Lakes and Volcanogenic Sediments

Web: http://imc.csp.escience.cn/dct/page/1 **Contact**: Jiaqi Liu http://imc.csp.escience.cn/dct/page/1

VI Collapse Caldera Workshop

Date: 4-10, September 2016, **Venue**: Hokkaido Japan

Web:

https://staff.aist.go.jp/geshi-nob/CCC/workshops/CCW06/first_c

ircular ccws6.pdf

Contacts:

Mitsuhiro Nakagawa Chief of LOC: mnakagawa@mail.sci.hokudai.ac.jp Nobuo Geshi, Co-commissioner of CCC: geshi-nob@aist.go.jp

IAVCEI Scientific Assembly - 2017

Date: 14-18 Agust, 2017 Venue: Portland, Oregon, USA

7th International Maar Conference

Olot, Spain

2018 (date will be confirmed by end of 2015)

The conference is supported by the IAVCEI Commissions on Monogenetic Volcanism, Volcanic Lakes and Volcanogenic Sediments

Contact: Joan Martí Molist joanmartimolist@gmail.com



Next Issue of the IAVCEI News will be published on 1st Sepytember 2016. Articles, notes, news or any items relevant to the IAVCEI community must be submitted by 15th August 2016 to be published in the next Issue.

Editor-in-Chief

Károly Németh

Massey University, Palmerston North

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