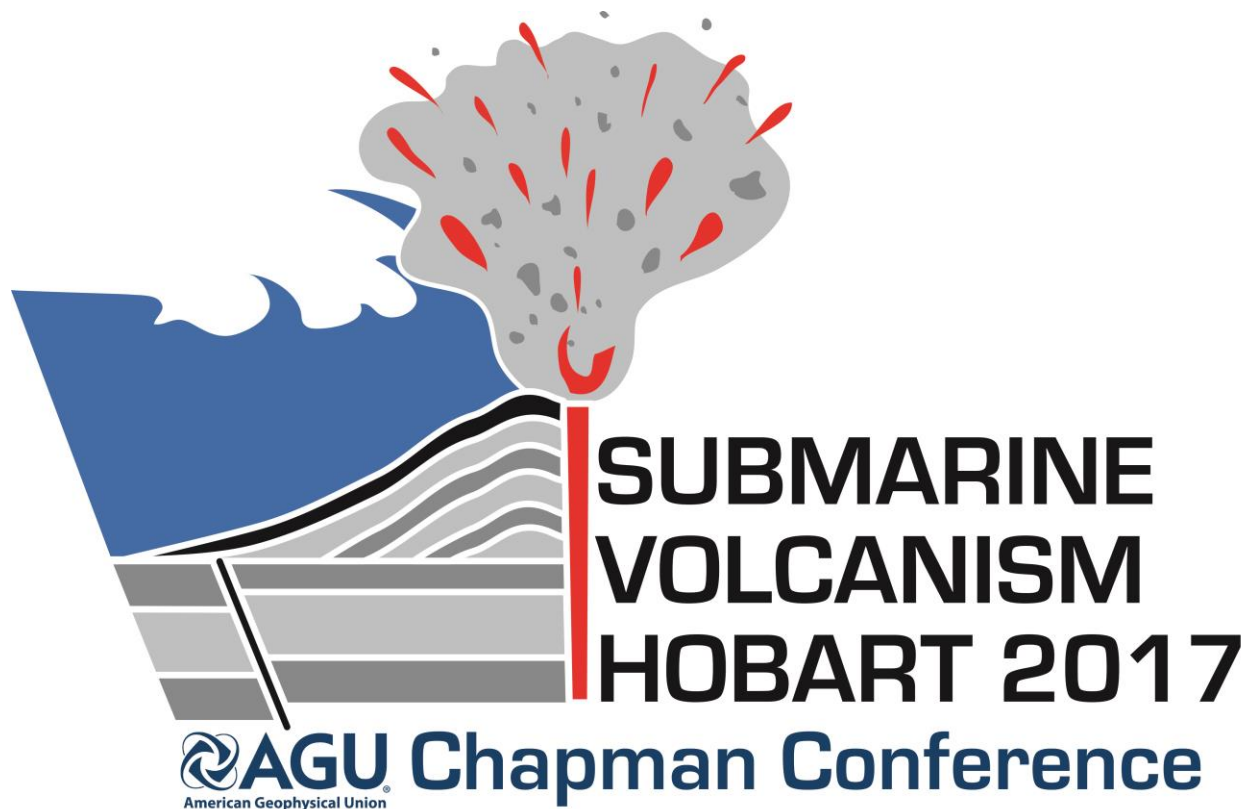




Hobart, Tasmania, Australia | 29 January–3 February 2017



**AGU Chapman Conference on  
Submarine Volcanism:**

**New Approaches and Research  
Frontiers**

# PROGRAM COMMITTEE

## Conveners

**Rebecca Jane Carey**  
University of Tasmania

**Raymond Cas**  
Monash University

**Mike Coffin**  
University of Tasmania

**Jocelyn McPhie**  
University of Tasmania

**Karin Orth**  
University of Tasmania

## Program Committee

**William Chadwick**  
Oregon State University, USA

**Robert Embley**  
NOAA Pacific Marine Environmental Laboratory, USA

**James White**  
University of Otago, New Zealand

**Michael Perfit**  
University of Florida, USA

**Ryan Portner**  
Brown University

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# VENUE MAP



## Scientific Program SUNDAY, 29 JANUARY

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5:00 p.m.– 9:00 p.m.

### **Ice Breaker Reception**

Presiding: Rebecca Carey

Hobart Brewing Company, 16 Evans Street

5:00 p.m.-9:00 p.m.

### **Registration**

Hobart Brewing Company, 16 Evans Street

## MONDAY, 30 JANUARY

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8:15 a.m.– 8:30 a.m.

### **Official Welcome and Ceremony**

Presiding: Rebecca Carey

Sovereign Room

- 8:30 a.m.– 10:15 a.m. **Modern: Mid-Ocean Ridges and Intraplate volcanism I**  
Convener(s): Ryan Portner, William Chadwick  
Sovereign Room
- 8:30 a.m. –9:00 a.m. **David A Clague** | In-situ study of submarine volcanism using 1m-resolution AUV-based seafloor mapping with targeted lava and sediment sampling using ROVs
- 9:00 a.m. –9:15 a.m. **V. Dorsey Wanless** | Magmatism and Crustal Accretion Along the Global Ridge System
- 9:15 a.m. – 9:30 a.m. **Colin William Devey** | Young Volcanism on the "Dead" Abyssal Plain: How Little we Really Know About Submarine Intraplate Volcanism
- 9:30 a.m. –9:45 a.m. **Yen Joe Tan** | Dynamics of a Seafloor Spreading Episode at the East Pacific Rise
- 9:45 a.m. –10:15 a.m. Discussion
- 10:15 a.m.– 10:45 a.m. **Morning Break**  
Marina/Gretel Room
- 10:45 a.m.– 12:30 p.m. **Modern: Mid-Ocean Ridges and Intraplatevolcanism II**  
Convener(s): William Chadwick, Ryan Portner  
Sovereign Room
- 10:45 a.m. –11:15 a.m. **Delwayne R Bohnenstiehl** | Seismic and Acoustic Constraints on the Dynamics of the Submarine Eruption Cycle at Axial Seamount
- 11:15 a.m. – 11:30 a.m. **William Chadwick** | Deformation Monitoring and the Magmatic Cycle at Axial Seamount, NE Pacific
- 11:30 a.m. –11:45 a.m. **Meghan Jones** | Degassing and Vesiculation during the 2011 eruption of Axial Volcano, Juan de Fuca Ridge



- 11:45 a.m. –12:00 p.m. **Isobel A Yeo** | Getting more from hydroacoustic data: age, texture and composition of seafloor volcanics from multibeam and sidescan sonar data
- 12:00 p.m. –12:30 p.m. Discussion
- 12:30 p.m.– 2:00 p.m. **Lunch**  
Marina/Gretel Room
- 2:00 p.m.– 3:45 p.m. **Modern: Mid-Ocean Ridges and Intraplatevolcanism III**  
Convener(s): William Chadwick, Ryan Portner  
  
Sovereign Room
- 2:00 p.m. –2:30 p.m. **Ryan A Portner** | Volcaniclastic deposits on the mid-ocean ridge provide evidence for explosive magma fragmentation, lava flow disaggregation, mass-wasting and pelagic transport processes
- 2:30 p.m. –2:45 p.m. **Ulrich Kueppers** | Shallow Submarine, Non-emergent Eruptions Revisited: Constraining Eruption Dynamics from Sampling of Floating Lava Balloons and Proximal Deposit Facies Analysis. The 1998-2001 Serreta Eruption (Azores, Portugal)
- 2:45 p.m. –3:00 p.m. **Thor H Hansteen** | Explosive emplacement of pyroclastic rocks containig abraded gabbro xenoliths at 3600 m water depth at Charles Darwin Volcanic Field, Cape Verde
- 3:00 p.m. –3:15 p.m. **Peter J Michael** | Contrasts in Dissolved CO<sub>2</sub> and Bubbles Between MORB and Submarine Flood Basalts: Insights into the Duration, Scale and Style of Lava Emplacement
- 3:15 p.m. –3:45 p.m. Discussion
- 4:00 p.m.– 4:30 p.m. **Early Career Science Slam**  
Convener(s): Bill Chadwick, Rebecca Carey  
  
Sovereign Room
- 4:30 p.m.– 5:30 p.m. **Poster Reception**

Marina/Gretel Room

4:30 p.m.– 5:30 p.m.

## **Mid-ocean Ridge and Intraplate Posters**

Convener(s): William Chadwick, Ryan Portner

Marina/Gretel Room

- D1-1 **Juan-Tomas Vazquez** | Geomorphological Analysis of the Underwater Tagoro Volcano (Submarine Slope of El Hierro Island)
- D1-2 **Juan-Tomas Vazquez** | Evolution of Seabed Mesofoms in Tagoro Volcano (submarine slope of El Hierro Island)
- D1-3 **Eugenio Fraile-Nuez** | The eruption of the submarine volcano Tagoro at the island of El Hierro, Canary Islands, Spain: 5 years registering physical-chemical anomalies
- D1-4 **Ramón Casillas Sr.** | *The trachytic lobe-hyaloclastite complex of the Caldera of Taburiente (La Palma, Canary Islands).*
- D1-5 **Kelsie Anne Dadd** | Characteristics of a Seamount Apron in the South China Sea, Hole U1431E, IODP Expedition 349
- D1-6 **Jiandong Xu** | Assessment of tephra fallout hazard for the nuclear facilities of China - a case study of Taishan Nuclear Power Plant (TNPP)
- D1-8 **Carmen Gaina** | Seamounts and Oceanic Igneous Features in the Northeast Atlantic: A Link Between Plate Motions and Mantle Dynamics
- D1-9 **Joanna M Parr** | Characterising the Magmatic Activity of the Bight Basin Igneous Complex of the Australian Southern Margin.
- D1-11 **Sally Joan Watson** | Submarine geology and geomorphology of active sub-Antarctic volcanoes: Heard and McDonald islands
- D1-12 **Jodi M Fox** | Studland Bay Basalts, Cape Grim, Tasmania, Australia - A world class exposure of submarine basaltic lavas.
- D1-14 **J. Magdalena Santana-Casiano** | Use of ORP and pH sensors in two-yr studies to map redox and acid-base anomalies

in the seawater properties due to hydrothermal activity in shallow areas

- D1-15            **Megan Lubetkin** | Tubular Nontronite-Bearing Hydrothermal Deposits from a Galápagos Seamount
  
- D1-16            **Darin M Schwartz** | Submarine Snapshots of Galápagos Magmatism
  
- D1-17            **Luis E. E. Lara** | Rapid transition from shield to post-erosional volcanism at O'Higgins guyot, Juan Fernández Ridge, Pacific SE
  
- D1-18            **Steffen Eisele** | Widespread (>100 km) Tephra from a Deep-Sea (>3000 mbsl) Eruption at the Cape Verde Archipelago, Central-East Atlantic Ocean
  
- D1-19            **Madeline Lewis** | Petrologic Controls on Explosive Eruptions from the Pacific-Antarctic Ridge
  
- D1-20            **Nico Augustin** | Volcano Morphology and Explosive Eruptions in the Red Sea
  
- D1-21            **Joel Ruch** | Seismic swarm activity at spreading centers in the southern Red Sea, Afar and Gulf of Aden
  
- D1-22            **Joel Ruch** | Oblique rift opening and graben reactivation revealed by reoccurring magma intrusions in central Iceland
  
- D1-23            **Pamela A Moyer** | Earthquake Stress Drop Before, During, and After the 2015 Eruption at Axial Seamount
  
- D1-24            **Margaret S Boettcher** | Stressing Rate Changes Associated with the 2015 Axial Seamount Eruption
  
- D1-25            **Deborah S Kelley** | An Advanced Submarine Cabled Observatory on Axial Seamount: Real-time Interaction with an Active Underwater Volcano Through the Internet
  
- D1-26            **Tom Kwasnitschka** | Quantitative Surface Evolution of Hydrothermal Edifices at the Endeavour Segment, Juan de Fuca Ridge
  
- D1-27            **Jennifer Brophy Paduan** | Examination of the Axial 2011 and 2015 lava flows from high-resolution AUV bathymetry and ROV dives

- D1-28 **Morgane Le Saout** | Morphological variability of the top of large inflated pillow mounds: indication about eruptive processes
- D1-29 **Samuel A Soule** | Eruption Dynamics on the Global Mid-Ocean Ridge System
- D1-30 **Tatum Miko Laforteza Herrero** | Young lava flows on 20 Ma crust in the North Atlantic
- D1-31 **Hongmei Yu** | Magmatic Processes Inferred from Chemical Composition and Texture of the Lavas in Ashikule Volcanic Cluster, Western Kunlun, China
- D1-32 **Marion L Lytle** | Major and trace element and isotopic constraints on magma systematics in lavas from the Mid-Cayman Spreading Center
- D1-33 **Brian M Dreyer** | Mixing and hybridization in basalt-to-rhyolite magmatism on an intermediate spreading mid-ocean ridge, Alarcon Rise, EPR.
- D1-34 **Daniel J Fornari** | Seamount Calderas and Craters- Keys to Submarine Magmatic and Volcanic Processes
- D1-35 **David Ferguson** | A continuous 65 ka time series of magma compositions at the Juan de Fuca ridge from sediment-hosted volcanic glass
- 6:00 p.m.– 7:00 p.m. **Keynote: Dr. Deb Kelley**  
Convener(s): Rebecca Carey  
  
University of Tasmania, Menzies Building, MS2 Lecture Room
- 6:00 p.m. –7:00 p.m. **Deborah S Kelley** | Bringing Underwater Volcanoes, Hot Springs, and the Life That They Host Directly Into Your Living Rooms Live 24/7

## TUESDAY, 31 JANUARY

---

8:30 a.m.– 10:15 a.m.

### **Modern: Volcanic Arcs and Back Arcs I**

Convener(s): Rebecca Carey, Richard Arculus

Sovereign Room

8:30 a.m. –9:00 a.m.

**Paraskevi Nomikou** | Kolumbo Submarine Volcano serves as a Natural Laboratory in the active Hellenic Volcanic Arc

9:00 a.m. –9:15 a.m.

**Jackie Caplan-Auerbach** | Submarine Eruption Dynamics, Revealed by Hydroacoustic Data at NW Rota-1, West Mata, and Axial Volcanoes

9:15 a.m. –9:30 a.m.

**Melissa O Anderson** | Relationship between tectonism, volcanism, and hydrothermal venting along the Mariana back-arc spreading center between 12.7°N and 18.3°N

9:30 a.m. –9:45 a.m.

**Christian Timm** | The Colville Ridge: New Zealand's ancient offshore arc and its role in present day Kermadec arc volcanism

9:45 a.m. –10:15 a.m.

Discussion

10:15 a.m.– 10:45 a.m.

### **Morning Break**

Marina/Gretel Room

10:45 a.m.– 12:30 p.m.

### **Modern: Volcanic Arcs and Back Arcs II**

Convener(s): Rebecca Carey, Richard Arculus

Sovereign Room

10:45 a.m. –11:15 a.m.

**Kenneth Howard Rubin** | Active and Recent Submarine Volcanism of the NE Lau Basin

11:15 a.m. –11:30 a.m.

**Raymond A Binns** | Deep-Seated Processes Govern Contrasted Eruption Styles at Felsic Submarine Neovolcanic Centres, Eastern Manus Back-Arc Basin (EMB), Papua New Guinea

- 11:30 a.m. –11:45 a.m. **Richard Arculus** | Sources and processes driving the submarine magmatism of western Pacific arcs and backarcs.
- 11:45 a.m. –12:00 p.m. **Osamu Ishizuka** | Submarine volcanic chain as an indicator of long distance lateral magma transport at oceanic island arc volcano
- 12:00 p.m. –12:30 p.m. Discussion
- 12:30 p.m.– 2:00 p.m. **Lunch**  
Marina/Gretel Room
- 2:00 p.m.– 3:45 p.m. **Modern: Volcanic Arcs and Back Arcs III**  
Convener(s): Rebecca Carey, Richard Arculus  
  
Sovereign Room
- 2:00 p.m. –2:30 p.m. **Rebecca Carey** | Determining the conduit, eruption and pyroclast transport dynamics of silicic submarine eruptions: Havre 2012
- 2:30 p.m. –2:45 p.m. **Arran P Murch** | Ash Generation During a Major Silicic Deep Marine Eruption
- 2:45 p.m. –3:00 p.m. **Sharon L Walker** | Patterns of fine ash dispersal associated with ongoing submarine volcanic eruptions
- 3:00 p.m. –3:15 p.m. **Iona M McIntosh** | Oomurodashi Volcano: Overview of an active shallow submarine silicic volcano in the Northern Izu Bonin Arc.
- 3:15 p.m. –3:45 p.m. Discussion
- 4:00 p.m.– 4:30 p.m. **Technology Showcase**  
Convener(s): Bill Chadwick  
  
Sovereign Room
- 4:30 p.m.– 5:30 p.m. **Poster Reception**  
Marina/Gretel Room

4:30 p.m.– 5:30 p.m.

## **Volcanic Arcs and Back Arcs Posters**

Convener(s): Rebecca Carey, Richard Arculus

Marina/Gretel Room

- D2-1 **Robert P Dziak** | Observations of submarine volcanism from 25 years of global hydrophone deployments
- D2-2 **Gabrielle Tepp** | Automatic Detection and Classification of Submarine Volcano Signals
- D2-3 **Maxim Portnyagin** | Submarine Piip Volcano, Western Aleutian Arc: Temporal Evolution from Back-Arc Rift to Island-Arc Stratovolcano
- D2-4 **Graham D Andrews** | Deciphering the Sources of Fine-Grained, Late Miocene Volcaniclastic Density Current Deposits in the Manji-Enpo Volcano-Bound Basin (Unit V, IODP Expedition 350 Site U1437 - Izu-Bonin Rear Arc): Insights from Shard and Crystal Geochemistry, SEM Petrography, XRF Core Scanning, and Shipboard Data.
- D2-5 **Steffen Kutterolf** | Emplacement and Origin of Eocene and Oligocene Submarine Pyroclastic Flows of Boninite and Rhyodacite Composition in the Bonin Fore-arc, IODP Expedition 352
- D2-6 **Norie Fujibayashi** | Emplacement processes of channelized submarine lava flows composed of jumbled sheet flows and pillowed flows, inferred from the Middle Miocene Ogi Basalts, Japan.
- D2-7 **Janis Thal** | Subaqueous Cryptodome Eruption on the Andesitic North Su Volcano
- D2-9 **Alexander RL Nichols** | Unravelling H<sub>2</sub>O Contents of Glassy Volcaniclastics Recovered During Drilling in the Izu-Bonin Mariana Arc: Implications for Eruption Environment
- D2-10 **Deborah E Eason** | Leveraging data from multidisciplinary studies to produce submarine geologic maps: the Mid-Atlantic Ridge Rainbow region and the Eastern Lau Backarc Basin

- D2-11 **Colin J N Wilson** | Comparisons and Contrasts Between Subaerial and Submarine Explosive Volcanic Processes: Case Studies From the Kermadec Arc
- D2-12 **Colin J N Wilson** | The Non-Explosive Generation of Pumiceous Material in Subaqueous Felsic Volcanism
- D2-13 **Chris Conway** | Scales of compositional heterogeneity in volcanic products of the 2012 eruption of Havre volcano, Kermadec arc
- D2-14 **Fumihiko Ikegami** | The Effects of Hydrostatic Pressure on the Deep Submarine Silicic Lavas - Havre 2012 Eruption
- D2-15 **Samuel J Mitchell** | Reconstructing the Evolution of the Submarine Havre Eruption, 2012: Insights from Vesicularity, Water Concentrations and Microtextural Analysis of Rhyolitic Glass
- D2-16 **Rhiannan Mundana** | Havre 2012 Submarine Eruption: The Role of Hydrostatic Pressure on the Morphology of a Silicic Lava Flow
- D2-17 **Katherine Lynn Croff Bell** | Investigation of Undulating Seafloor Features on the Slopes of Large Subduction Zone Volcanoes
- D2-18 **Masakazu Fujii** | Geophysical investigation of basalt- to rhyolite-hosted hydrothermal fields in arc and back-arc regions of the Okinawa Trough
- D2-19 **Nicholas J Dyrw** | Eruptive Styles and Nature of the Volcanic Edifice Associated with the Solwara 1 Seafloor Massive Sulfide Deposit, East Manus Basin, Bismarck Sea
- 6:00 p.m.– 7:00 p.m. **Keynote: Dr. Adam Soule**  
Convener(s): Garry Davidson  
  
University of Tasmania, Menzies Building, MS2 Lecture Room
- 6:00 p.m.– 7:00 p.m. **Samuel A Soule** | Deep-Sea Synergy: Humans, Robots, and the Most Active Volcanic Systems on Earth



## WEDNESDAY, 1 FEBRUARY

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- 10:00 a.m.– 5:30 p.m.      **Optional Field Trip: Unzoo Devil Park and eco cruise exploring the coastline between port Arthur, Lime Bay and Dunalley**
- 6:30 p.m.– 8:30 p.m.      **Conference Banquet**  
Sovereign Room

## THURSDAY, 2 FEBRUARY

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- 8:30 a.m.– 10:15 a.m.      **Integrating ancient and modern and numerical/experimental approaches I**  
Convener(s): James White, Karin Orth  
  
Sovereign Room
- 8:30 a.m. –9:00 a.m.      **Jocelyn McPhie | Characteristics and Origin of the Havre 2012 Giant Pumice**
- 9:00 a.m. –9:15 a.m.      **Jun Hosoi | Submarine Lava-fountain Eruptions in the Back-arc Basin during Opening of the Japan Sea**
- 9:15 a.m. –9:30 a.m.      **Nancy Riggs | Facies Architecture of Subaqueous Volcanism in the Cabo De Gata Volcanic Field, Spain.**
- 9:30 a.m. –9:45 a.m.      **Ray AF Cas | The Effects of Palaeoenvironment on Eruption Styles and Deposit Characteristics: Assessing Differences Between the Subaerial and Subaqueous Parts of the Late Devonian Boyd Volcanic Complex, NSW, Australia, and the Causes**
- 9:45 a.m. –10:15 a.m.      Discussion
- 10:15 a.m.– 10:45 a.m.      **Morning Break**  
Marina/Gretel Room

10:45 a.m.– 12:30 p.m.

## **Integrating ancient and modern and numerical/experimental approaches II**

Convener(s): James White, Karin Orth

Sovereign Room

10:45 a.m. –11:15 a.m.

**Tracy K P Gregg** | Laboratory, field, and numerical approaches to interpreting submarine lava flow morphologies: Where we are, where we want to be, and how to get there

11:15 a.m. –11:30 a.m.

**Ryan Cain Cahalan** | Numerical Modeling of Pumice Clast Heat Transfer and Transport Dynamics in Subaqueous Eruptions

11:30 a.m. –11:45 a.m.

**Kristen Fauria** | Trapped bubbles keep pumice afloat and gas diffusion makes pumice sink

11:45 a.m. –12:00 p.m.

**Michael Manga** | Interaction of pyroclastic density currents with water

12:00 p.m. –12:30 p.m.

Discussion

12:30 p.m.– 2:00 p.m.

## **Lunch**

Marina/Gretel Room

2:00 p.m.– 3:45 p.m.

## **Integrating ancient and modern and numerical/experimental approaches III**

Convener(s): James White, Karin Orth

Sovereign Room

2:00 p.m. –2:30 p.m.

**James D L White** | Simulating The Unseen - Analogue Experiments Illuminate Submarine Eruptive Processes

2:30 p.m. –2:45 p.m.

**Jonathan H Fink** | Laboratory Simulations of Submarine Lava Flow Morphology: A Quarter Century of Progress

2:45 p.m. –3:00 p.m.

**Andrea Verolino** | Surtseyan Volcanic Eruptions: An Experimental Perspective

- 3:00 p.m. –3:15 p.m. **Martin Jutzeler** | Experimental and hindcast modelling approaches on the dispersal of tephra by pumice rafts
- 3:15 p.m. –3:45 p.m. Discussion
- 4:00 p.m.– 4:30 p.m. **Volcano Video Festival**  
Convener(s): Bill Chadwick  
Sovereign Room
- 4:30 p.m.– 5:30 p.m. **Poster Reception**  
Marina/Gretel Room
- 4:30 p.m.– 5:30 p.m. **Integrating Ancient & Modern, Numerical, and Experimental Approaches Posters**  
Convener(s): James White, Karin Orth  
Marina/Gretel Room
- D4-2 **Victoria Miller** | Assessing the Level of Volcanic Hazard and Risk from Volcanoes in Remote Localities
- D4-3 **Kristen Fauria** | Partitioning pumice into rafts and submarine deposits during the 2012 eruption of Havre submarine volcano
- D4-4 **Ray AF Cas** | Volcaniclastic Megaturbidites: the Footprint of Pyroclastic Flows Entering Bodies of Water
- D4-5 **Karin Orth** | Ancient subaqueous successions in the Hart-Carson LIP, north Western Australia
- D4-6 **Hiromitsu Yamagishi** | Comparison between recent pillow lavas and ancient analogues
- D4-7 **Steve John Barnes** | UAV Photogrammetry of Inflated Komatiite Flow Lobes and Submarine Debris Flows in an Archean Bimodal Volcanic Terrane, Yilgarn Craton, Western Australia
- D4-8 **Grace V Cumming** | Geochronology and Geochemistry of Complex Ancient Volcanic Sequences in Western Tasmania

- D4-10 **Nino Valiko Popkhadze Sr.** | Evidence of submarine depositional environment for the host rocks of the Upper Cretaceous Madneuli polymetallic deposit, Lesser Caucasus, Georgia (implication for the host rock depositional environment)
- D4-11 **Lisa A Skinner** | Miocene Intra-Continental, Shallow, Subaqueous Volcanism in Verde Valley, Arizona, USA – A Permanent Record of a Temporary Lake
- D4-12 **Kyoko S. Kataoka** | Rhyolite Magma Intrusion into Subaqueous Unconsolidated Sediments: Facies, Structures and Formation Processes
- D4-13 **Rhiannan Mundana** | Rocks from the Cascade Seamount: An Archive of the Unzipping of Gondwana and the Initiation of the ACC?
- D4-14 **David C Lund** | Explosive submarine volcanism during the penultimate deglaciation: New results from the Pacific Antarctic Ridge
- D4-16 **Kassandra Costa** | Spatial Patterns of Hydrothermal Deposition on the Juan de Fuca Ridge over the Past 500,000 years
- D4-17 **Guangyu Xu** | Circulation, hydrography, and transport over the summit of Axial, a deep volcano in the Northeast Pacific
- D4-18 **Andrew B. Palm** | Results for a new cooling rate probe applied to MORB from the Galapagos seafloor.
- D4-19 **Bo Zhao** | The formation of Dawengquan maar volcano of Longgang volcanic cluster of China

6:00 p.m.– 7:00 p.m.

**Keynote: Dr. Comel de Ronde**

Convener(s): Bruce Gemmell

University of Tasmania, Menzies Building, MS2 Lecture Room

6:00 p.m.–7:00 p.m.

**Cornel E J de Ronde** | Exploration of Intraoceanic Arc Seafloor Hydrothermal Systems: What do we Know?

## FRIDAY, 3 FEBRUARY

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- 8:30 a.m.– 10:15 a.m.      **The Next Decade of Research in Submarine Volcanism: Integrating Modern/Ancient Studies**  
Convener(s): James White, Karin Orth  
  
Sovereign Room
- 8:30 a.m. –8:45 a.m.      Keynote: Ray Cas
- 8:45 a.m. –9:30 a.m.      Breakout Groups
- 9:30 a.m. – 10:15 a.m.      Reporting Back to the Whole Group and Discussion
- 10:15 a.m.– 10:45 a.m.      **Morning Break**  
Marina/Gretel Room
- 10:45 a.m.– 12:30 p.m.      **The Next Decade of Research in Submarine Volcanism: Remote and Insitu Technologies to Facilitate Science in the Next Decade**  
Convener(s): Bill Chadwick, Adam Soule  
  
Sovereign Room
- 10:45 a.m. –11:00 a.m.      Keynote: Bob Dziak
- 11:00 a.m. –11:45 a.m.      Breakout Groups
- 11:45 a.m. – 12:30 p.m.      Report back to the Whole Group and Discussion
- 12:30 p.m.– 2:00 p.m.      **Lunch**  
Marina/Gretel Room

2:00 p.m.– 3:45 p.m.

**The Next Decade of Research in Submarine  
Volcanism: Q&A Panel discussion**

Convener(s): Daniel Fornari

Sovereign Room

3:45 p.m. – 4:00 p.m.

**Break**

Marina/Gretel Room

4:00 p.m.– 5:00 p.m.

**The Next Decade of Research in Submarine  
Volcanism: Open discussion - Opportunities  
and Multidisciplinary Interaction for the  
Scientific Goals of the Next Decade**

Marina/Gretel Room

5:00 p.m.– 5:30 p.m.

Meeting Summary and Highlights

Sovereign Room

5:30 p.m onwards.

**Closing Celebrations**

Marina/Gretel Room and Hobart Brewing Company