9:00 a.m.–1:15 p.m.  **Integration of Geophysics, Petrochronology and Numerical Modeling I**
Convener(s): Josef Dufek, Patricia Gregg
Salon Quinamavida

9:00 a.m. –9:15 a.m.  Welcome to Chile and the Chapman Conference

9:15 a.m. –9:45 a.m.  **Katharine V Cashman** | Petrologic perspectives on the architecture of active magmatic reservoirs (*Invited*)

9:45 a.m. –9:55 a.m.  Questions and Discussion

9:55 a.m. –10:10 a.m.  **Jonathan R Delph** | The Evolution and Seismic Expression of a Lithospheric-scale Magmatic System: The Puna Plateau (*Invited*)

10:10 a.m. –10:15 a.m.  Questions and Discussion

10:15 a.m. –10:45 a.m.  **Matthew E Pritchard** | Geophysical evidence for silicic crustal melt in the continents: where, what kind, and how much? (*Invited*)

10:45 a.m. –10:55 a.m.  Questions and Discussion

10:55 a.m. –11:10 a.m.  Coffee Break

11:10 a.m. –11:25 a.m.  **Drew Steven Coleman** | Picking Apart a Bouguer Anomaly Using Space and Time (*Invited*)

11:25 a.m. –11:30 a.m.  Questions and Discussion
11:30 a.m. –12:00 p.m.  Christy B. Till | A Petrologist’s-Eye View of Silicic Magmatic Systems (Invited)

12:00 p.m. –12:10 p.m.  Questions and Discussion

12:10 p.m. –12:25 p.m.  Bradley S Singer | Integrating Geomorphology, Geochronology, and Numerical Modeling of 60 Meter Surface Inflation to Reveal Holocene Growth of the Silicic Magma Reservoir Beneath Laguna del Maule, Chile (Invited)

12:25 p.m. –12:30 p.m.  Questions and Discussion

12:30 p.m. –1:15 p.m.  Panel Discussion

2:15 p.m. – 7:00 p.m.  Reservoir Dimensions and Location(s) of Melt

Convener(s): Jamie Farrell, Stephanie Prejean
Salon Quinamavida

2:15 p.m. –2:45 p.m.  Juliet Biggs | Melt dimensions and connectivity within magma reservoirs from geophysical observations (Invited)

2:45 p.m. –2:55 p.m.  Questions and Discussion

2:55 p.m. –3:10 p.m.  Martyn Jonathan Unsworth | Electromagnetic Imaging of Silicic Magma Bodies (Invited)

3:10 p.m. –3:15 p.m.  Questions and Discussion

3:15 p.m. –3:45 p.m.  Stephen R McNutt | Interpreting Seismic Signals Associated With Active Volcanic Systems (Invited)

3:45 p.m. –3:55 p.m.  Questions and Discussion

3:55 p.m. –4:10 p.m.  Coffee Break

4:10 p.m. –4:25 p.m.  Katie M Keranen | Fault Accommodated Magmatic Localization Beneath Laguna del Maule (Invited)

4:25 p.m. –4:30 p.m.  Questions and Discussion

4:30 p.m. –5:00 p.m.  Judy Fierstein | Postglacial Eruptive History Established by Mapping and Tephra Stratigraphy Provides Perspectives on Magmatic System beneath Laguna del Maule, Chile (Invited)

5:00 p.m. –5:10 p.m.  Questions and Discussion

5:10 p.m. –5:25 p.m.  Ninfa L Bennington | Understanding the rhyolitic magma system beneath Laguna del Maule, Chile: A Seismic Investigation (Invited)
5:25 p.m. –5:30 p.m. Questions and Discussion

5:30 p.m. –5:45 p.m. Basil Tikoff | The interaction of deformation and volcanism in the plutonic record: Do volcanic conduits exploit geological structures? (Invited)

5:45 p.m. –5:50 p.m. Questions and Discussion

5:50 p.m. –7:00 p.m. Panel Discussion/Breakout Groups

7:00 p.m.– 8:00 p.m. Merging Geophysical, Petrochronologic and Modeling Perspectives to Understand Large Silicic Magma Systems Posters

Convener(s): Bradley Singer, Clifford Thurber, Josef Dufek
Salon Maule

P-1 Carol D Frost | Dimensions and characteristics of intrusive complements to silicic ignimbrites: insights from the Wyoming batholith, USA

P-2 Darcy Raymond Cordell | Imaging the Laguna del Maule Volcanic Field, Central Chile Using Magnetotellurics: Evidence For Upper-to-mid Crustal Melt Regions Laterally-offset From Surface Vents and Holocene Lava Flows

P-3 Philipp Ruprecht | Characteristics and pathways of primitive magma supply near Laguna del Maule

P-4 Renzo Mancini | 3-D modeling of magnetotelluric data in the San Pedro-Linzor volcanic chain, Central Andes, northern Chile.

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Sebastian Garcia | Future Laguna del Maule Argentine Volcano Monitoring Network

Alvaro Amigo | Advances in the hazards evaluation for the Laguna del Maule volcanic complex

TUESDAY, JANUARY 09

7:30 a.m.– 9:30 p.m. | Field Trip to Laguna del Maule
Convener(s): Alvaro Amigo, Bradley Singer

7:30 a.m. –6:00 p.m. | Board Buses for Laguna del Maule

6:00 p.m. –7:30 p.m. | Chilean BBQ

7:30 p.m. –9:30 p.m. | Board Buses to Hotel Quinamavida

WEDNESDAY, JANUARY 10

9:00 a.m.– 1:15 p.m. | Growth and Evolution of Systems on Long and Short Time Scales
Convener(s): Allen Glazner, Fidel Costa
Salon Quinamavida
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<td><strong>Blair Schoene</strong></td>
<td>Constraining magmatic processes with ID-TIMS U-Pb geochronology: towards better P-T-X-t paths in magmatic systems</td>
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<td><strong>Mary R Reid</strong></td>
<td>Protrated magma assembly and evolution of the Toba Caldera Complex, Indonesia</td>
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<td>On the mechanics and melt segregation of crystal-rich systems</td>
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<td><strong>Katy Chamberlain</strong></td>
<td>Chronologies of Magma Chamber Assembly and Eruption for Supervolcanoes: Long Valley and the Taupo Volcanic Zone</td>
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9:00 a.m.–1:15 p.m. **Interpreting Signals of Unrest to Improve Eruption Forecasting**  
Convener(s): Carlos Cardona, Tim Masterlark  
Salon Quinamavida

9:00 a.m.–9:30 a.m. **Edward (Wes) Hildreth** | Lessons from Long Valley Caldera (LVC) for Considering the Unrest at Laguna del Maule (LdM) *(Invited)*

9:30 a.m.–9:40 a.m. Questions and Discussion

9:40 a.m.–9:55 a.m. **Hélène Le Mével** | Modeling Deformation Episodes at Large Silicic Systems using Poroelasticity: Examples from Long Valley Caldera and Laguna del Maule Volcanic Field. *(Invited)*

9:55 a.m.–10:00 a.m. Questions and Discussion

10:00 a.m.–10:30 a.m. **Tamsin A Mather** | Integrating gas measurements with other volcanological constraints in order to understand unrest at caldera systems *(Invited)*

10:30 a.m.–10:40 a.m. Questions and Discussion

10:40 a.m.–10:55 a.m. Coffee Break

10:55 a.m.–11:10 a.m. **Glyn Williams-Jones** | 4D gravity-geodesy – An integral part of comprehensive monitoring and modelling of large silicic magmatic systems *(Invited)*

11:10 a.m.–11:15 a.m. Questions and Discussion

11:15 a.m.–11:45 a.m. **Jacob B Lowenstern** | Merging geophysical, petrochronologic, and modeling perspectives to understand large silicic magma systems *(Invited)*

11:45 a.m.–11:55 a.m. Questions and Discussion
11:55 a.m. –12:10 p.m. Stephanie G Prejean | Eruption Forecasting Challenges at Large Calderas (Invited)

12:10 p.m. –12:15 p.m. Questions and Discussion

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Michael R Ackerson | Low-temperature crystallization of quartz in the Tuolumne Intrusive Suite
Rebecca Ann Lange | Insights from the kinetics of phenocryst nucleation and growth on the timescales between melt generation and eruption of high-SiO$_2$ rhyolites from Long Valley, California

Adriana Alves | Unveiling the hidden evidences of magma mixing processes via combination of in situ Sr isotope and trace elements analyses on plagioclase crystals

Michael Manga | Residual Strains in Magnetite and Zircon Record Volcanic Processes

Casey R Tierney | Links between thermochemical state in silicic systems and near-eruption growth record of major and accessory phases

Craig Andrew Miller | A Shallow Magma Reservoir at Laguna del Maule Volcanic Field, and its Influence on Regional Fault Structures: Insights from Static and Time-Varying Gravity Models.

John C Eichelberger | The next step in merging multiple perspectives on silicic magma systems should be to test them by drilling

Gerhard Wörner | Ignimbrite magmatism related to the Central Andean subduction zone through space and time: compositions, magma production rates and net crustal growth

Michael Cassidy | Integrating experimental petrology with InSAR deformation constraints for the magmatic system of Kelud volcano, Indonesia

Michael Manga | 3D Attenuation structure of Long Valley caldera (imaged with coda normalization method)

Román Alvarez | FRAGMENTATION PROCESSES OF THE CRETACEOUS GRANITES IN THE WEST-CENTRAL PORTION OF MEXICO: A GEOPHYSICAL APPRAISAL

Claudio Contreras | Bubble heterogeneities in pumices: Implications for strain localizations and fragmentation

Nathan L Andersen | Numerical Modeling Perspectives on Zircon Crystallization and Magma Reservoir Growth at the Laguna del Maule Volcanic Field, Central Chile

Meredith Adelle Calogero | High-resolution numerical modeling of mechanisms and timescales of heat and volatile transfer from basalt to granitoid crust: implications for the origin of voluminous rhyolite

Roger Machacca | Detection of Velocity Variations in Explosive Volcanoes Using Ambient Noise Correlation: The Ubinas Volcano, Peru
P-47 Francisco Delgado | A decade (2007-2017) of InSAR geodesy at Cordon Caulle volcano: a silicic eruptive cycle and evolution of a crystal mush observed from space

P-48 Carlos Cardona Sr. | Crustal seismicity associated to rapid surface uplift at Laguna del Maule Volcanic Complex, Southern Volcanic Zone of the Andes

P-49 Daniel Basualto | Structural control on silicic magma ascent and evacuation evidenced by seismicity recorded during the 2011 eruption of Cordon Caulle Volcano

P-50 Angela K. Diefenbach | The past, present, and future of Laguna del Maule volcanic field, southern Andes: insights from high-resolution topographic data

P-51 Sebastian Garcia | Future Laguna del Maule Argentine Volcano Monitoring Network

P-52 Alvaro Amigo | Advances in the hazards evaluation for the Laguna del Maule volcanic complex

FRIDAY, JANUARY 12

9:00 a.m.–1:00 p.m. Integration of Geophysics, Petrochronology and Numerical Modeling II

Convener(s): Matthew Pritchard, Martyn Unsworth, George Bergantz

Salon Quinamavida

9:00 a.m.–9:30 a.m. Tim Masterlark | Impulse-response Experiments for Integrating Space-borne, Field, and Laboratory Measurements of Magmatic Systems (Invited)

9:30 a.m.–9:45 a.m. Questions and Discussion

9:45 a.m.–10:15 a.m. Josef Dufek | Using magma dynamics models to integrate geochemical and geophysical data in a process-based framework: Melt residence and accumulation at Laguna del Maule, Chile (Invited)

10:15 a.m.–10:25 a.m. Questions and Discussion

10:25 a.m.–10:40 a.m. Coffee Break
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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tr>
<td>10:40 a.m. –10:55 a.m.</td>
<td><strong>Fidel Costa Rodriguez</strong></td>
<td>Looking into the smaller to see the bigger: nanometer observations of minerals as clues to thermal histories and reservoir sizes of silicic magmas (<em>Invited</em>)</td>
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<td>10:55 a.m. –11:00 a.m.</td>
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<td>Questions and Discussion</td>
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<td>11:00 a.m. –11:30 a.m.</td>
<td><strong>Patricia M Gregg</strong></td>
<td>Linking thermomechanical models with geodetic observations to assess magma reservoir evolution and stability (<em>Invited</em>)</td>
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<td>11:30 a.m. –11:40 a.m.</td>
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<td>Questions and Discussion</td>
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<td>11:40 a.m. –11:55 a.m.</td>
<td><strong>Paul Bedrosian</strong></td>
<td>Crustal inheritance and arc magmatism: Constraints from the Washington Cascades on top-down control (<em>Invited</em>)</td>
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<td>11:55 a.m. –12:00 p.m.</td>
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<td>Questions and Discussion</td>
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<td>12:00 p.m. –12:15 p.m.</td>
<td><strong>Craig Lundstrom</strong></td>
<td>A possible role for low temperature melt in silicic magmatic systems (<em>Invited</em>)</td>
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<td>12:15 p.m. –12:20 p.m.</td>
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<td>Questions and Discussion</td>
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<td>12:20 p.m. –1:00 p.m.</td>
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<td>Panel Discussion</td>
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