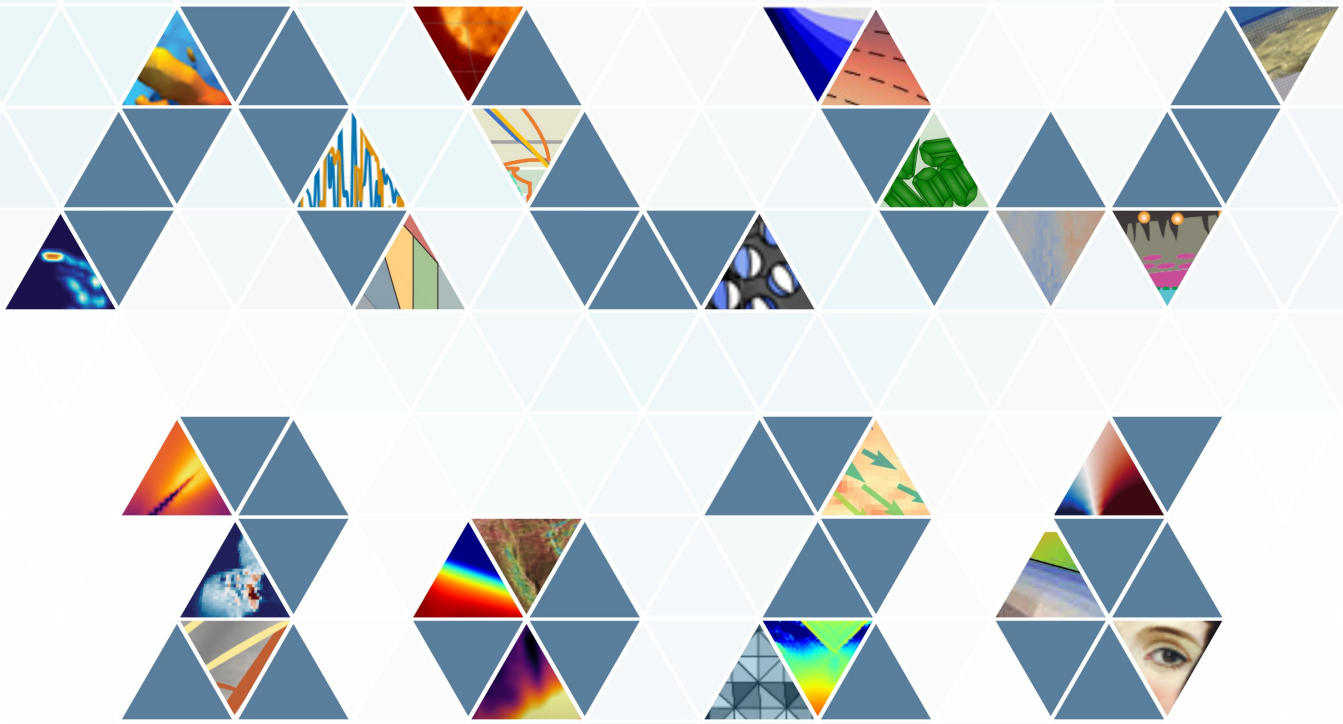
Conference booklet



Charles University

1919 CZECH GEOLOGICAL SURVEY

Introduction

It is our great pleasure to welcome you to the 2026 Ada Lovelace Workshop on Modelling of Mantle and Lithosphere Dynamics, held at Lake Seč in the Czech Republic from 21 to 26 June 2026.
This workshop marks a homecoming for the series, the Czech Republic previously hosted the community in 1993 and in 2003, and we are proud to welcome it back after more than two decades. The 2026 edition is jointly organised by Charles University in Prague and the Czech Geological Survey.
The serene setting of Lake Seč, in the Bohemian-Moravian Highlands, provides an ideal environment for the kind of focused, collegial scientific exchange that has always defined this workshop series. Accommodation and meals are shared by all participants, deliberately so, in keeping with the tradition of the Ada Lovelace Workshops, this format is designed to break down the barriers between early-career scientists and senior researchers, and to encourage the informal conversations from which new ideas so often emerge.

About the Workshop Series

The workshop series was initiated in 1987 in Neustadt an der Weinstrasse, Germany, under the name International Workshops on Mantle and Lithosphere Dynamics. For nearly four decades it has served as the primary dedicated forum for the geodynamics modelling community, gathering specialists in mantle convection, lithosphere dynamics, and related disciplines on a biennial basis. Past editions have been held across Europe, in France, the Netherlands, Italy, Hungary, Norway, and beyond, reflecting the pan-European character of the community.
In 2018, the European Geosciences Union (EGU) Topical Events Committee renamed the series in honour of Ada Lovelace, the nineteenth-century English mathematician whose visionary notes on Charles Babbage's Analytical Engine represent the earliest recognition that a computing machine could be applied to problems far beyond arithmetic. The renaming was a tribute both to her intellectual legacy and to the central role that numerical computation plays in modern geodynamics research.
The 2026 workshop in line with the previous meetings includes the evolution of the field, from early explorations of mantle convection to the sophisticated multi-physics, multi-scale models that are the hallmark of today's research.

Scope

The Ada Lovelace Workshops bring together researchers working on the numerical modelling of mantle convection and lithosphere dynamics in the broadest sense. The scope of the 2026 programme spans the full range of processes that govern the solid Earth's long-term evolution, including: Mantle convection and heat transport in the Earth and other planetary bodies; Plate tectonics, subduction, and lithospheric deformation; Rheology of rocks, minerals, and ice; Interactions with seismology, gravity, geochemistry, and geodesy; Advances in computational methods, software, and modelling infrastructure. The programme features invited keynote presentations, open poster sessions, and dedicated discussion time. Poster presentations are introduced by one-minute lightning talks, giving every participant visibility on the workshop floor. As in previous editions, time slots are specifically reserved for dialogue between early-career scientists and keynote speakers, reinforcing one of the founding purposes of the series.

A Note of Thanks

Organising a residential workshop of this kind is a collective effort, and we are grateful to many people and institutions. We thank the European Geosciences Union for its continued sponsorship and stewardship of the Ada Lovelace series, and the International Lithosphere Program for its support. We are grateful to the staff at the Lake Seč venue for their hospitality. Above all, we thank the scientific committee, the invited speakers, and every participant who has contributed an abstract, a poster, or simply the enthusiasm and curiosity that make this workshop what it is.
We wish everyone an inspiring and productive week.

The Organising Committee

- Hana Čížková – Charles University, Prague
- Petra Maierová – Czech Geological Survey, Prague
- Vojtěch Patočka – Charles University, Prague
- Ladislav Hanyk – Charles University, Prague

With the help of Ondřej Kureš, Barbora Piláriková, Adrian Bakoč, Klára Anna Šindlerová, Martin Hronek, Vít Beran, Mohit Lohani, Terézia Košíková, Ivana Štencová, Alexandr Dizov, Lav Joshi, Pavlína Hasalová, Luc de Hoym de Marien, and Lucie Tajčmanová

Contact: alw.2026.cz@gmail.com
Web: geo.mff.cuni.cz/alw2026/

The scientific committee:

- Craig Bina - Northwestern University, Evanston, USA
- Sascha Brune - GFZ Potsdam, Germany
- Ondřej Čadek - Charles University, Prague, Czech Republic
- Fanny Garel - University of Montpellier, France
- Taras Gerya - ETH Zurich, Switzerland
- Laetitia Le Pourhiet - Sorbonne University, France
- Jean-Arthur Olive - École Normale Supérieure, Paris, France
- Lucie Tajčmanová - Heidelberg University, Germany
- Catherine Thoraval - University of Montpellier, France
- Ylona van Dinther - Utrecht University, Netherlands

Practical Information

Venue

The workshop is held at Hotel Jezerka, located close to the shore of Lake Seč (Sečská přehrada), a reservoir in the Bohemian-Moravian Highlands approximately 120 km east of Prague. The hotel neighbours the village of Seč, in the Chrudim District of the Pardubice Region. All lectures, poster sessions, meals, and accommodation are co-located at the hotel, in keeping with the residential format of the workshop series.
Address: Hotel Jezerka, Seč 145, 538 07 Seč, Czech Republic. The nearest larger town is Chrudim (approx. 15 km north), and the nearest railway junction is Čáslav (approx. 20 km west).

Getting There

The most practical point of entry for international participants is either Václav Havel Airport Prague (PRG) or Praha hlavní nádraží (Prague Main Railway Station). Both are well connected to the rest of Europe.
The conference venue, Hotel Jezerka, is located near the city of Pardubice (33 km), which has excellent rail connections to Prague. Direct trains depart from Praha hlavní nádraží (Prague Main Railway Station) approximately every 20 minutes. Timetables and tickets are available at idos.cz/en/ and cd.cz/en/. Please note that seat reservations are compulsory on some trains; these are available free of charge when booking online. Travelling from Prague Airport, the total journey time to Pardubice is approximately 2 hours.
Shuttle buses (recommended)
Bus transportation will be arranged from Pardubice Main Railway Station (Pardubice hlavní nádraží) to Hotel Jezerka on Sunday afternoon (arrival day), and from the hotel back to Pardubice on Friday morning (departure day). Three buses are planned for Sunday afternoon. The exact schedule will be adjusted according to participants' arrival times; the first bus is expected to depart at approximately 2–3 pm and the last no later than 9 pm. The final timetable will be communicated to registered participants in advance.

By public transport
Participants who wish to explore the Czech countryside independently can take a public bus from Pardubice Main Railway Station (Pardubice hlavní nádraží) to the Seč bus stop (Seč, náměstí, district Chrudim). Connections are searchable at idos.cz/en/. From the Seč bus stop, Hotel Jezerka is approximately a one-hour walk along the lake; alternatively, the organising committee will be happy to arrange a car pick-up from Seč — please contact them in advance if you plan to travel this way.
By car
Driving takes approximately 1 hour 50 minutes from Prague Airport (PRG) or from the city centre. The most direct route follows the D11 motorway east towards Hradec Králové, then the D35/E442 south-west towards Chrudim, and finally regional roads south to Seč and Hotel Jezerka. Parking is available at the hotel. Shared car arrangements between participants travelling from Prague are strongly encouraged; the organising committee can assist with coordinating lifts upon request.

Prague Integrated Transport (PID)

If you are spending time in Prague before or after the workshop, public transport is excellent and inexpensive. Prague Integrated Transport (Pražská integrovaná doprava, PID) operates the metro, trams, buses, and suburban trains within Prague and the surrounding Central Bohemian Region under a unified ticketing system.
As of the updated 2026 tariff, single-trip tickets within Prague cost 50 CZK for a 90-minute ticket or 39 CZK for a 30-minute ticket when purchased in paper form; tickets bought via the PID Lítačka app are cheaper at 46 CZK (90-minute). The PID Lítačka app (available for iOS and Android) is the recommended way to buy tickets – it is cheaper, contactless, and supports English. Tickets can also be purchased at metro station vending machines (card and cash), at tobacco kiosks (trafiky), and from bus drivers.
Important notes for airport arrivals: the Airport Express (AE) bus between Praha hlavní nádraží and Václav Havel Airport operates on its own dedicated fare of 200 CZK and is not covered by standard PID tickets or 24/72-hour passes. Regular PID bus lines (trolleybus 59 to Nádraží Veleslavín, or bus 100 to Zličín) are covered by standard tickets and offer a cheaper alternative if you have light luggage. Note that a separate ticket is required for each piece of luggage larger than $25 \times 45 \times 70$ cm.
Short-term tourist passes (24-hour or 72-hour) are available for those spending a day or more in the city; these cover unlimited travel on all metro, tram, and bus lines within the Prague fare zones. Monthly or longer-term passes remain unchanged in price at 550 CZK per month. Full fare information is available at pid.cz/en.

Currency: Czech Crown (CZK)

The Czech Republic is a member of the European Union but has not adopted the euro. The official currency is the Czech koruna (koruna česká, CZK or Kč). Euro notes and cards are not generally accepted for everyday transactions, though some tourist-oriented businesses in Prague may accept euros at unfavourable rates. It is strongly recommended to use CZK for all purchases. The approximate exchange rate is 24–25 CZK per 1 EUR, and around 22–23 CZK per 1 USD. ATMs (bankomaty) are widely available throughout Prague and accept international Visa and Mastercard; they offer better rates than airport exchange counters. Contactless card payment is widely accepted in Prague and in most restaurants and shops throughout the Czech Republic, including at the venue area. It is advisable to carry a small amount of cash for rural bus travel, small shops, and any situations where card payment may not be available. Avoid exchange kiosks near tourist areas in Prague (particularly around Old Town Square and Wenceslas Square) as they often advertise misleading rates. Use bank ATMs or exchange offices inside banks for the best rates.

Emergency Contacts

European emergency number (police, fire, ambulance): 112
Czech Police: 158
Ambulance: 155
Fire brigade: 150

Local Tips

Language: Czech is the official language. English is widely spoken in Prague and among younger generations throughout the country. A few basic Czech phrases are always appreciated by locals: dobrý den (good day), prosím (please / here you go), děkuji (thank you), na zdraví (cheers) and jedno pivo prosím (one beer please).

Weather: The workshop takes place in late June, when the Bohemian-Moravian Highlands typically enjoys warm, pleasant summer weather with daytime temperatures between 20–28 °C. Evenings near the lake can be cooler, so a light jacket is recommended. Occasional afternoon thunderstorms are possible; pack a compact rain layer.
Connectivity: Mobile coverage at Lake Seč is generally available with major Czech carriers (T-Mobile, O2, Vodafone). EU roaming rules apply for participants travelling from within the European Union, meaning your home plan's data and calls should work at no extra charge. Participants from outside the EU may wish to purchase a local SIM card on arrival at the airport. Wi-Fi will be available at the venue.
Dining and drinks: Czech cuisine features mainly meat-based dishes, freshwater fish, and seasonal produce. The country is well known for its beer (pivo) – Bohemian lagers such as Pilsner Urquell and Kozel are widely available. Vegetarian and dietary-restricted options are increasingly common in restaurants; Hotel Jezerka catering has been informed of participants' dietary requirements as submitted during registration. Tap water is safe to drink throughout the Czech Republic.
Tipping: Tipping is customary in restaurants (around 10%) but not obligatory. The easiest way is to round up the bill or tell the waiter how much to charge when paying, say the total amount you wish to pay rather than asking for change.

Social Events

The workshop programme includes a number of social events on the evenings of Monday, Tuesday, and Thursday. Please note that all outdoor events are subject to weather conditions; the organising committee will modify or reschedule activities accordingly.
Monday evening — Karaoke night
An informal karaoke evening will be held at the hotel, offering a relaxed opportunity to unwind and get to know fellow participants after the first full day of the scientific programme.
Tuesday evening — Bonfire
A bonfire will be organised, providing a convivial setting for continued conversations in the open air.
Thursday evening — Barbecue and live music
The final social evening of the week will feature an outdoor barbecue accompanied by live music, rounding off the scientific programme in a celebratory atmosphere.

2026 Ada Lovelace Workshop on Modelling Mantle and Lithosphere Dynamics

Program overview

Scientific programme

The scientific programme consists of keynote oral presentations and poster sessions. Oral presentations are by invitation only and last about 45 minutes, including 10 minutes for questions. The poster format is A0, portrait orientation. Please note that no poster printing facilities will be available on site. All early career scientists, except invited speakers, are required to give a one-minute flash presentation using a single slide to advertise their posters.

Sunday 21st June

14:00–21:00 Arrival and check-in

18:30–20:30 Welcome drink and dinner

Monday 22nd June: Litosphere dynamics

7:00–10:00 Breakfast

8:30–8:45 Introduction

8:45–9:30 **Susanne Buiter**: A discussion of rifted continental margins in a plate tectonic context

9:30–10:15 **Oğuz Göğüş**: Lithospheric dripping across tectonic regimes: From Earth's orogens to Venusian tectonics

10:15–10:45 Coffee break

10:45–11:30 **Denise Degen**: Interpretable physics-based machine learning for geodynamic modeling

11:30–12:30 Poster mini-presentations 1

12:30–14:00 Lunch

14:00–14:45 **Anthony Jourdon**: Coupling long-term geodynamics and dynamic rupture: Deformation of the lithosphere across scales

14:45–15:30 **Sebastian Wolf**: Quantifying the interaction between tectonic deformation and climate-driven surface processes using coupled geodynamic-landscape evolution models

15:30–16:00 Students-speakers meeting

16:00–16:30 Coffee break

16:30–18:00 Poster session 1 (posters displayed from Monday morning to Tuesday evening)

18:00–18:30 Plenary discussion

18:30–20:30 Dinner

Tuesday 23rd June: Feedbacks between deformation, fluids and reactions & Long- and short-term deformation

7:00–10:00 Breakfast

8:45–9:30 **Adina Pusok**: Melt generation and transport from the mantle to the surface

9:30–10:15 **Tobias Keller**: Numerical modelling of multi-phase flows in magmatic systems (online)

10:15–10:45 Coffee break

10:45–11:30 **Ágnes Király**: Towards efficient modelling of rock texture related mechanical anisotropy in large-scale dynamic models

11:30–12:30 Poster mini-presentations 2

12:30–14:00 Lunch

14:00–14:45 **Arne Spang**: Ductile instability, strain localization, and rupture propagation by thermal runaway

14:45–15:30 **Christian Sippl**: Processes in subducting slabs: How can seismology inform models?

15:30–16:00 Students-speakers meeting

16:00–16:30 Coffee break

16:30–18:00 Poster session 2 (posters displayed from Monday morning to Tuesday evening)

18:00–18:30 Plenary discussion

18:30–20:00 Dinner

Wednesday 24th June

7:00–10:00 Breakfast

8:00–12:00 Excursion to the glassworks in Světlá nad Sázavou (led by Lucie Tajčmanová)

8:30–17:00 **Geological field trip** (led by Pavlína Hasalová and Luc de Hoÿm de Marien) and visit to Kutná Hora (unguided tour)

8:00–18:00 Recreational activities (rowboats on Lake Seč, cycling, hiking, tennis tournament, swimming etc.)

Picnic-style lunch and snacks

16:00–18:00 **MAGEMin workshop** (led by Boris Kaus)

18:00–20:00 Dinner

19:00–20:30 **Geodynamic World Builder workshop** (led by Menno Fraters, Michael Pons and Daniel Douglas)

Thursday 25th June: Thermo-chemical evolution of Earth's mantle & Planets and ocean worlds of the Solar System

7:00–10:00 Breakfast

8:30–9:15 **Julian Lowman**: Plate generation from mantle convection and feedback with the deep interior

9:15–10:00 **Diogo Lourenço**: Rocky planets as heat engines: Global tectonomagmatic regimes and planetary evolution

10:00–10:45 Poster mini-presentations 3

10:45–11:15 Coffee break

11:15–12:00 Poster session 3 (posters displayed from Wednesday morning to Thursday evening)

12:00–12:45 **Madeleine Kerr**: Considering the effects of mineral phase transitions on mantle convection dynamics and heat flow in Venus

12:45–14:00 Lunch

14:00–14:45 **Martin Kihoulou**: Remote-controlled tectonics: How does Io drive "rifting" and "subduction" on Europa?

14:45–15:30 **Christophe Sotin**: Laboratory experiments on the creep behavior of ices: Implications for the interior dynamics of icy worlds

15:30–16:00 Students-speakers meeting

16:00–16:30 Coffee break

16:30–18:00 Poster session 3 (posters displayed from Wednesday morning to Thursday evening)

18:00–18:30 Plenary discussion

18:30–24:00 Dinner & Farewell party

Friday 26th June

7:00–10:00 Breakfast, check-out and departure

Poster sessions

Posters in sessions 1 and 2 will be displayed together from Monday morning until Tuesday evening. Poster session 3 will be displayed starting from Wednesday morning until Thursday evening. Early-career scientists, denoted with an asterisk, will also give mini-presentations during Poster mini-presentations 1, 2 and 3.

Poster session 1

Name	Title
Sascha Brune	Semi-automated analysis of fault and plate boundary networks using Fatbox
Jieun Chang*	Effects of the balance between grain-size reduction and growth on lithosphere–basin evolution and mantle upwelling during continental rifting
Daniel Douglas*	Linking surface and deep earth processes in geodynamic models: Coupling ASPECT and LandLab
Luc de Hoÿm de Marien*	Combined petrology and physical modelling reveal the thermal evolution of translithospheric diapirs in the French Massif Central
Valeria Fedeli*	Subduction initiation across a magma-poor to magma-rich passive margin transition: preliminary results from 3D numerical modelling
Yangfan Huang*	Kinematics and Dynamics of Trumpet-Shaped Strike-Slip Fault Systems: The Western Himalayan Syntaxis Case Study
Theo Häußler*	The Coupling of Mechanical Anisotropy to Post Glacial Rebound
Pejvak Javaheri*	Implementing PlateRecipy: an open-access tool utilizing graph theory for detecting tectonic plate boundaries in geophysical datasets and model output
Sreenidhi Kuruvamana Satheeshbabu*	Why Does the Afar Plume Flow Laterally Beneath Thick Arabian Lithosphere? Insights from Geodynamic Modelling
Yingying Li*	Mantle plume formation and dynamics under Central Europe
Gwynfor T. Morgan*	Strain Localisation in 2D models of continental rifting coupled to surface processes.
Laura Muzhakmentov*	How surface temperature changes surface magmatism and the tectonic regime
María Elisa Muñoz*	Exploring geodynamic controls of orogenic gold systems under Paleoproterozoic and Phanerozoic thermal conditions.
Iván Navarrete*	A cyclo-steady-state model for inter-rifting deformation in magmatic rifts
Tina Neumann*	Lithospheric mechanisms leading to rift failure
Abigail Plimmer*	Controls on the spatio-temporal distribution of plume-related excess melting during continental rifting
Kun Shang*	Did supracrustal materials build Archean continents? Evidence from coupled S-Si isotopes
Stephanie A. Sparks*	From Thermochronology to Geodynamics - Adapting Uncertainty Analysis for Lithosphere and Mantle Modeling
Bernhard Steinberger	A new approach to estimate oceanic upper mantle viscosity structure
Simran Suresh*	Using ASPECT to construct a fully coupled 3D geodynamic landscape evolution model - Preliminary results and Outlook
Catherine Thoraval	Strength and sensitivity: Toward an a priori quantification of deformation localization potential in the ductile lithosphere
Etienne Van Broeck*	Diagnosing rheological feedbacks during plate boundary formation
Nhat Le Vo*	Topographic diffusion parameterization for rift dynamics: application to an ultra-slow Arctic ridge
Yijun Wang*	Composition-dependent erosion in subduction zones: Implications for slab dynamics and Andean margin evolution
Chenying Yu*	Thermomechanical modeling of the Archean thermal state: Evidence for a hot, thin lithosphere

Alan J. Yu*	Geodynamic controls on the Upper Rhine Graben: from transtensional basin architecture to thermo-hydro-mechanical processes
Yu Zhang*	Applying geodynamic tools to 3D large-scale ice-sheet modelling

Poster session 2

Name	Title
Amita Anand*	Can porosity waves create long-period seafloor topography? Investigating the topographic expression of transient mid-ocean ridge magma supply
Vít Beran*	A parameterized model of a solidifying magma reservoir: the microstructural record of crystal settling dynamics
Arijit Chakraborty*	Towards thermo-chemical geodynamic modelling: surrogate models for coupling ASPECT with thermodynamics
Hee Choi*	Estimating Archean Oceanic Crust Composition and Its Role in Water Delivery in Subduction Settings
András Cserép*	Transient Seafloor Uplift at Mid-Ocean Ridges Driven by Mush Zone Buoyancy
Albert de Montserrat Navarro	RheologyCalculator.jl: automatically solving arbitrary constitutive relationships
Menno Fraters	Intermediate-complexity modeling of magma–tectonic interaction in continental rifts
Fanny Garel	Thermal structure and deformation state of folding slabs : relationship with subduction zones' deep seismicity
Xiang He*	Pacific double-subduction drives Gulf of California rifting
Tianyu Hu*	Linking the lower seismic layer in double seismic zones to the oceanic mid-lithospheric discontinuity
Buchanan Kerswell*	Beyond Equilibrium: Kinetic Thresholds and Rheological Feedbacks Create a Potentially Complex 410 in Slab Regions
Ondřej Krýza	Evolution of hot partially molten orogenic crust during lateral compression: Insights from coupled numerical and analogue models
Laetitia Le Pourhiet	3D modelling of double out-dip subduction initiation in triangular oceanic basins: the role of slab bending
Victor Lherm*	Subduction dynamics in colloidal suspension convection experiments
Zhong-Hai Li	Contrasting slab decarbonation patterns control deep carbon cycling efficiency in hot vs. cold subduction zones
Xinnuo Li*	Crust–Mantle Separation at the Top of the Lower Mantle: Insights From Numerical Modeling
Yida Li*	From Slab Dynamics to Seismicity: A Global Perspective
Mohit Lohani*	Geodynamic models of the Hellenic slab: implications for seismicity and stress
Antonio Manjón-Cabeza Córdoba*	The differentiation of the growing mantle-magma ocean system: the primacy of thermodynamic properties
Ana Carolina Maurício Gomes*	From Constant to Nonlinear: Assessing the Role of Rheology in Subduction Interface Behavior
Kim Moutard*	Sensitivity of hydrothermal vent temperatures to changes in crustal permeability profiles
Derek Neuharth*	Dynamics of Carbonated Melt Migration in an Evolving Continental Rift
Marko Repac*	Petit-Spot Volcanism: Flexure-Driven Melt Transport in the Oceanic Lithosphere
Neil M. Ribe	Flexural and Membrane Stresses in Doubly Curved Subducting Slabs
Arushi Saxena*	Role of Local and Far-Field Forces in Central and Eastern U.S. Intraplate Seismicity
Felipe Saéz Leiva*	Two-phase flow modelling with FEniCSx: benchmarking and first steps into studying deformation and fluid flow feedback in simple shear
Minji Seong*	Thermal structure modeling of subduction zones incorporating two-phase fluid flow

Shona A. Swan*	Tracking the Geochemical Evolution of the Oceanic Crust Using a Multi-Component Geodynamic Model of Mid-Ocean Ridge Magmatism
Andréa Tommasi	Modelling ductile strain localization with evolutive stochastic rheologies
Leevi Tuikka*	How do you drive sinking and translation of a warm, oceanic plate? A geodynamic-petrological model of Paleoproterozoic flat-slab subduction
Yang Wang*	Maximum Decoupling Depth controls the Point of No Return in oceanic subduction zones
Tatjana Weiler*	Pure necking or strain localization: Rheological and geometrical controls of the lower crust on slab detachment
Filippo Zarabara*	Strain localisation in anisotropic materials
Lilou Zeller*	Adeli2024 : The new version of a 3D versatile software for elasto-visco-plastic deformations on geological time scales
Lilou Zeller*	Multiscale modeling of viscous strain localization : from rocks sample to lithospheric scale
Rui-Min Zhang*	Numerical Simulation of Fully Compressible Two-Phase Flow in Subduction Zones

Poster session 3

Name	Title
Andrea Adams*	3D Modeling of Peel Back Delamination on Venus
Riva Alkahal*	Investigating mantle flow on Mars
Valentin André*	Investigating Partial Melting in Europa's Mantle Using 3D Convection Models
Maëlis Arnould	Influence of Mantle Rheology on Plume Morphology and Dynamics
Maëlis Arnould	Geodynamica: a new community-led Diamond-Open Access Journal dedicated to Earth and (Exo)Planets dynamics
Daniel Astudillo Manosalva*	Forming the Lunar crustal Dichotomy from Terrestrial Tides
Adrian Bakoč*	Why is Enceladus so stressed?
Priyanka Biju Sindhu*	Experimental Insights into Effusive Cryovolcanism: Boiling and Freezing of Saln Water under Low Pressure Conditions
Ritabrata Dasgupta*	Automatic detection and time tracking of mantle plumes using topological data analysis
Anne Davaille	On the importance of melt to localize large-scale deformation on Venus
Alexandr Dizov*	Role of water in mantle-lithosphere interactions in the context of Venus
Catherine Gower*	Testing Compositional Asymmetry Between the African and Pacific LLVPs Using a Bayesian Inversion Framework
Gabriel Johnston*	A Global Voxel-Based Analysis of Residence Time and Flux from Backward in Time Mantle Convection
Hyunseong Kim*	Investigating the roles of laterally variable surface temperature and tidal heating in Europa's ice shell
Inyup Kim	Assessment of the Applicability of Smoothed Particle Hydrodynamics to Geodynamic Thermal Convection
Terézia Košíková*	The Role of Geophysical Constraints in Assessing of Europa's Interior
Yusuke Kubota*	The role of the mantle decompaction layer in Hadean volcanism
Laëtitia Lebec*	Cracking Europa: Dilational bands formation
Artem Lebedev*	Estimation of Gravity Field Parameters by thermal evolution modelling of Uranus's icy satellites
Kyeong-Min Lee*	Efficient GPU Uzawa algorithms with projection strategies for geodynamic Stokes flow
Kyeong-Min Lee*	The Effect of Multiple Impact Scenarios on the Thermo-Hydrodynamic Evolutionary Path and Core Formation Timing in Terrestrial Planets

Ranpeng Li*	Modeling Thermodynamically Consistent Phase Transitions in a Heterogeneous Mantle: A Multi-Component Entropy Method
Julian P. Lowman	Impact of numerical model dimensionality on stagnant-lid convection in extreme curvatures and the influence of dynamically-varying thermal conductivity
Tianyang Lyu*	Mantle flow acceleration drives episodic mobile-lid tectonics in Earth-like planets
Ziqi Ma*	Revisiting Plume-Induced Oceanic Hotspot Swells and Global Plume Buoyancy Fluxes
Enrico Marzotto*	Variable Thermal Conductivity Induces the Formation of Low-Conductivity Zones in Mantle Convection Models
Marla Metternich*	Rheological Controls on the Plate-Mantle System: Self-Consistent vs. Kinematically Constrained Models
Nickolas Moccetti Bardi*	Effects of Surface Mobility on Relevant Mantle H_2O Fluxes and Distribution
Gwynfor T. Morgan*	Explaining d410-d660 correlation using MCMs?
Vojtěch Patočka	Layered bubble-rich structures on icy worlds: near-vacuum experiments with large volumes of low-salinity water
Barbora Piláriková*	Coupled Damage and Ocean Overpressure Dynamics in Enceladus' Ice Shell
Michael Pons*	Surface expression of global tectonic regimes on Earth and Venus
Hang Qian*	Modeling True Polar Wander from Time-Dependent Mantle Convection Using Self-Gravitating Geoid and Dynamic Topography in ASPECT
Alessandro Regorda	Understanding the Evolution of Venusian Rifts through Integrated Observations and Modeling
Sandrine Ritter*	From Mantle to Atmosphere: Quantifying the Geodynamic and Climatic Impacts of Large Igneous Provinces
Maxwell Rudolph	Broad thermochemical plumes - morphology, melt production, and volatile release
Sabatino Santangelo*	Updated lunar crustal thickness distribution from global geodynamic models
Shi J. Sim	Volatile distribution in a Crystallizing Venusian Magma Ocean with hydrodynamic escape
Henry W. Sitte*	Investigating the Stability of Thermochemical Piles for Different Origins
Dave Stegman	Revisiting Thermal Evolution Models of Rocky Planets using Asymmetric Thermal Boundary Layers
Klára Anna Šindlerová*	Viscous response of Enceladus' ice shell to hydrothermal vents
Cedric Thieulot	The evolving diversity of the geodynamics community: Ada Lovelace Workshop participants from 1987 to 2024
Sushilkumar Thounaojam*	Modeling Iron Droplets Settling in Magma Ocean: Timescales of Core Formation
Andrea Tommasi	Linking elastic and viscous anisotropy in the upper mantle through neural networks
Michaela Walterová*	The effect of Mercury's spin rate and eccentricity variations on past tidal heating
Zhensheng Wang*	The dense MORB fraction controls the dynamic stability and water-storage potential of the Mantle Transition Zone
Wenbo Zhang*	Invert for the length scale of lunar mantle heterogeneity in the source region of Chang'E-5 mare basalts