



IASPEI IAGA

JOINT SCIENTIFIC MEETING

LISBON 2025

IAGA / IASPEI Joint Scientific Meeting

31 August - 5 September 2025
Lisbon, Portugal

BOOK OF ABSTRACTS



International Association
of Geomagnetism and Aeronomy



IASPEI

International Association of Seismology
and Physics of the Earth's Interior

iaga-iaspei-2025.org

Title: IAGA / IASPEI Joint Scientific Meeting 2025, 31 August – 5 September 2025,
Lisbon, Portugal: Book of Abstracts

Publisher: CZECH-IN s. r. o., 5. května 65, 140 00 Prague 4, Czech Republic

Issued: August 2025

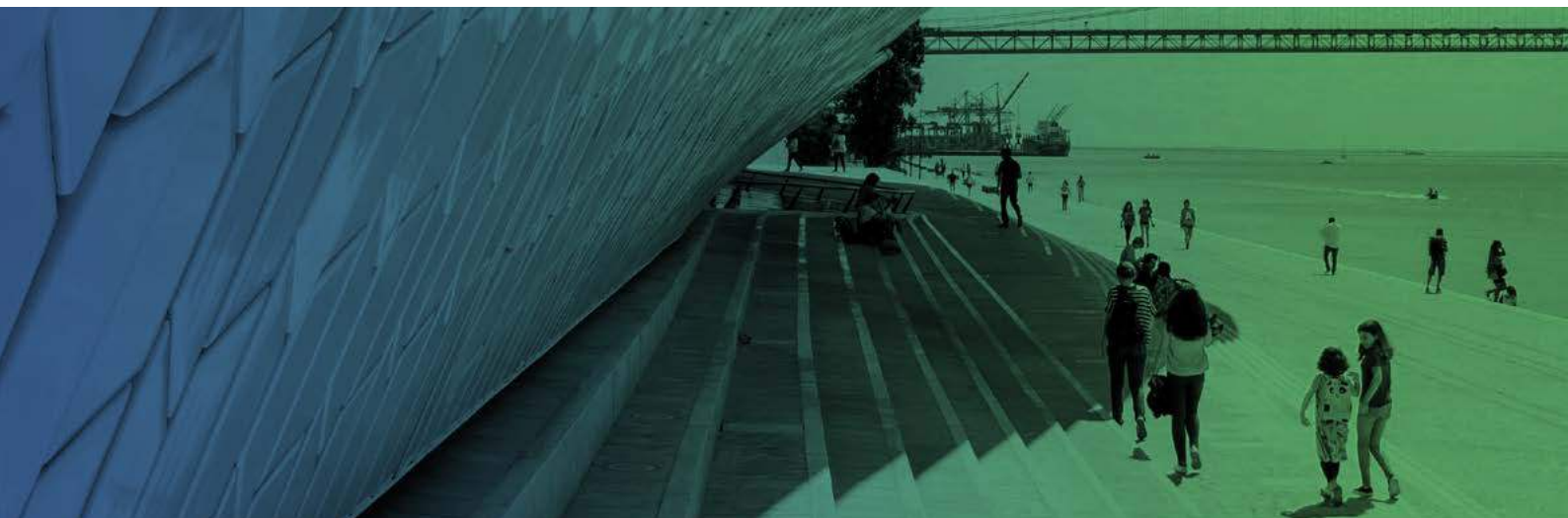
1st edition

The organiser takes no responsibility for any of the content published in the Abstract Book.

All abstracts are published as submitted by their authors with no changes made by the organisers.

All rights reserved © CZECH-IN s. r. o., 5. května 65, 140 00 Prague 4, Czech Republic

ISBN number: 978-80-909294-2-5



Content

Oral Sessions Overview	4
Topics	5
Abstracts	8
Author Index	1479
Partners & Exhibitors	1508

Oral Sessions Overview

		A.2.3	A.2.8/9	A.2.11	A.2.12/13	A.2.16/18	C.2.12	C.2.13	C.2.14	C.2.22	C.2.23	C.3.1	C.3.7	C.3.16
MON 1 Sept	08:30-10:00	IASPEI Opening Plenary (Main Auditorium)					A26	A35	A04	A27	A12		A30	
	11:00-12:30	S04	J06	S03	J09	J11	A26	A35	A04	A27	A12	S15	A30	
	14:00-15:30	S04	J06	S03	J09	J11	A26	A33/A34	A04	A27	A12	S15		
	16:30-18:30	S04	J06	S03	J09	J10	J11	A33/A34	A04	A27	A12	S15		
TUE 2 Sept	08:30-10:00	S04	J05	S05	S16	J10	A06	A33/A34	A23	A27	A16	S15	A24	
	11:00-12:30	S01	J05	S05	S16	J10	A06	A05	A23	A27	A16	S15	A24	
	14:00-15:30	S01	J05	S05	S21	S12	A01/A02	A05	A23	A27	A15	S18	A24	
	16:30-18:30	S01	J05	S05	S21	S12	A01/A02	A05	A23	A27	A15	S18	A24	
WED 3 Sept	08:30-10:00	S01	J02	S17		S12	A01/A02	A10	A31	A27	A13	S18	A18	
	11:00-12:30		S20		S09	S12	IAGA Award Ceremony (Main Auditorium)					S18		
	14:00-15:30	S22	J02	S10	J08/S23	S12	A11	A10	A31	A32	A13	S18	A18	
	16:30-18:30	S22	J02	S10	J08/S23		A11	A10	A31	A32	A13	S18	A18	
THU 4 Sept	08:30-10:00		J04	S10	J07/S06	S08	A03	A22	A31	A32	A13	S13	A20	
	11:00-12:30	S02	J04	S10	J07/S06	S08	A07	A22	A31	A32	A14	S13	A20	
	14:00-15:30	S02	J04	S10	J07/S06	S19	A07	A22	A03	A28	A14	S13	A20	
	16:30-18:30	S02	J04	S10	J07/S06	S19	A07		A03	A28	A14	S11	A20	
THU 4 Sept	08:30-10:00	S02	J03		J01	S07	A08	A25	A29	A28	A14	S11	A21	A09
	11:00-12:30	S02	J03		J01	S07	A08	A25	A29	A28	A14	S11	A21	A09
	14:00-15:30	IASPEI Closing Plenary (Main Auditorium)					A17	A25	A29	A28	A14		A21	
	16:30-18:30													

Please note the symposia schedule is subject to change.

AS25-0381

Network-based analysis of seismovolcanic signals at Mutnovsky volcano, Kamchatka

Yaroslav Berezhnev¹, Nadezhda Belovezhets¹, Ivan Koulakov^{1,2}, Sergei Abramnikov², Ilyas Abkadyrov³, Danila Chebrov⁴

¹ Skolkovo Institute of Science and Technology, Center for Petroleum Science and Engineering, Moscow, Russian Federation

² Trofimuk Institute of Petroleum Geology and Geophysics SB RAS, Laboratory of Seismic Tomography, Novosibirsk, Russian Federation

³ Institute of Volcanology and Seismology FEB RAS, Laboratory of Active Tectonics and Paleoseismology, Petropavlosk-Kamchatsky, Russian Federation

⁴ Geophysical Survey RAS, Kamchatka Branch, Petropavlovsk-Kamchatsky, Russian Federation

Mutnovsky volcano is one of the most active in Kamchatka, located near the city of Petropavlovsk-Kamchatsky and close to the Mutnovsky Geothermal Plant. Although long-period seismicity has been recorded at the volcano for over 40 years by the Kamchatka Branch of the Geophysical Survey (KB GS) of the Russian Academy of Sciences, detailed studies remain limited due to the lack of dense seismic networks, leaving the sources of seismovolcanic activity poorly understood.

In this study, we applied a network-based method to analyze continuous seismic records from 4 permanent and 21 temporary stations operating in 2023–2024 near Mutnovsky and Gorely volcanoes. We estimated the width of the network covariance matrix eigenvalue distribution. Then, through back-projection of interstation cross-correlations, we evaluated the network response function and located the sources of seismovolcanic signals.

Volcanic tremors within the 1.5–5 Hz frequency range were detected from February 6, 2024, until the end of the monitoring period on March 15, 2024. The tremor sources were located up to 2 km beneath the northeast flank of Mutnovsky volcano, where active thermal springs and fumaroles are located. The observed tremors are likely associated with a hydrothermal explosion at an abandoned well that occurred between February and March 2024.