International Conference for Coupling of Earth's Spheres (ICES): Prediction, Early warning, and Nowcasting of Nature Hazards

Conference Manual

Chengdu University of Technology
Chengdu, Sichuan
March 2025

Conference Instructions

1. Conference Registration and Fee Payment:
   Registration Time:
   March 1, 2025, on the day of registration, from BJT 15:00 to 17:30,
   March 2 to March 3, 2025, official conference days, from BJT 08:00 to 12:00
   Registration Venue:
   Building 9, Chengdu University of Technology

2. All delegates are requested to enter the conference venue 10 minutes before the session begins. Please ensure that mobile phones are set to silent or turned off upon entering the venue.

3. Presenters are advised to preload their PowerPoint presentations onto the conference computer in advance. Each oral presentation is allocated 30 minutes, including 5 minutes for discussion.

4. Please prepare your own posters. The standard size is 0.8 meters in width and 1.2 meters in height. Presenters should display their posters in the designated poster area by March 2.

5. Conference location and schedule (specific arrangements can be found in the agenda).

6.International delegates are advised to prepare mobile network devices before entering the country to ensure smooth communication with the conference organizing committee.

Conference Venue		Building 9, Chengdu University of Technology
Conference Time	Morning	BJT 9:00-11:55
	Afternoon	BJT 14:00-17:45

6.Dining Location: Camphor Restaurant 3rd floor, Chengdu University of Technology.

7. Conference Weather:

Date	Weather Forecast	Temperature
03.01	Cloudy	5-13°C
03.02	Cloudy	5-12°C
03.03	Cloudy	5-13°C
03.04	Cloudy	5-14°C
03.05	Cloudy	5-14°C
03.06	Cloudy	5-14°C

Dear Attendee,

Greetings! Please scan the QR code below to join the WeChat group for this conference, which will facilitate communication and discussion of relevant matters. Thank you for your support!

If the QR code has expired, please contact a member of the organizing committee.

Best regards

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Scan the QR code to join the group

Agenda

Time	Topic	Speaker	Chair
March 1 (location：Building 9, Chengdu University of Technology)			
15:00-17:30	Check-in		
March 2 Morning (Plenary Hall : Keynote)			
08:45-09:00	Opening Ceremony		
09:00-09:30	LAI Coupling observation and research: from CSES to IMCP	XuHui Shen	
09:30-10:00	Enormous Seismogenic Current and LCAI Coupling Response Driven by Crust Rock Fracturing	LiXin Wu	
10:00-10:30	Ionospheric anomaly related to the earthquakes; Statistical analysis and assessment for precurso ry information	Katsumi Hattori	
10:30-11:00	Photo and Break		
11:00-11:30	Successful Prediction of Multiple Earthquakes	Chieh-Hung Chen	
11:30-12:00	Study of Precursor Signals of Ionosphere and Ground Motion -Toward Earthquake Prediction	Koh-Ichiro Oyama (online)	
Lunch			
March 2 Afternoon (Session Room 1 : Simulation)			
14:00-14:30	Low-frequency excitations in the Earth-Atmosphere-Ionosphere excited by the sources in the lower atmosphere	Yuriy Rapoport	YongXin Gao
14:30-15:00	Modellling of acoustic-gravity waves generated by an earthquake source	YongXin Gao	
15:00-15:30	Seismic Electromagnetic Disturbances and Numerical Simulation prior to the Mexico Mw7.0 Earthquake	Dan Tao	
15:30-15:45	Break		
15:45-16:15	Magnetic field anomalies simulation in ULF band of ionosphere before Madoi earthquake by induced current	Ting Wang	
16:15-16:45	Analysis of Electromagnetic Field Characteristics of Earthquake Related Ionospheric Anomalies: Observation and Simulation	QiFeng Jiang	
March 2 Afternoon (Session Room 2 : Sate obs.)			
14:00-14:30	Impact of Space Weather on Geospheres	Yang-Yi Sun	Yang-Yi Sun
14:30-15:00	Application of GNSS Radio Occultation for Climate Change Detection	Mohamed Darrag	

15:00-15:30	Determination on precipitable water vapor using ground-based GNSS station and space-borne FORMOSAT-7 radio occultation	Ta-Kang Yeh	
15:30-15:45	Break		
15:45-16:15	Unveiling magmatic structures and connectivity beneath the lunar Oceanus Procellarum region from GRAIL gravity data	MeiXia Geng (online)	
16:15-16:45	Equatorial Plasma Density Irregularities Observed by Advanced Ionospheric Probe Onboard FORMOSAT-5 Satellite	Chi-Kuang Chao	
March 2 Afternoon (Session Room 3 : Geomagnetism & Space)			
14:00-14:30	Assessment and Management of Geomagnetic Data Quality in Egyptian Observatories	Aalaa Mohamed Samy	Yu Liu
14:30-15:00	Introduction of the Daocheng astronomical sites	Yu Liu	
15:00-15:30	Radio Transients in BINGO Radio Telescope	Amilcar Rabelo de Queiroz (online)	
15:30-16:00	Analysis of Atmospheric Methane Anomalies in the Sichuan-Yunnan Region	Jing Cui	
16:00-16:30	Rapid Reversal of Earth's Magnetic Field and Disaster Prediction: Imaging Earth's Core Toroidal Currents	BoXin Zuo	
16:30-17:00	Search for open star clusters and study of the structure of the Milky Way	ZhiHong Hei	
March 2 Afternoon (Session Room 4 : NH & data)			
14:00-14:30	Monitoring Natural Hazards Using Dense Seismic Arrays and Infrasonic Sensors	Cheng-Horng Lin	QinQin Liu
14:30-15:00	Robust Satellite Techniques (RST) for Monitoring, Early warning and Forecast of Nature Hazards	Valerio Tramutoli	
15:00-15:30	Early warning of rock slope failure based on pore pressure response during rainfall, a preliminary concept	Jia-Jyun Dong (online)	
15:30-15:45	Break		
15:45-16:15	Atmospheric physicochemical multi-parameter horizonal and vertical mitigation response of two recent Sheveluch volcano eruptions in Kamchatka	QinQin Liu	
16:15-16:45	Preliminary Observational Results of a High-Precision Three-Component Magnetometer in the Tatun Volcano Area	Ching-Ren Lin	

March 3 (Session Room 1 : LAIC)			
09:00-09:30	The role of air ionization in the inter-geospheres coupling	Sergey Pulinets	XueMin Zhang
09:30-10:00	The LAIC processes for strong earthquakes in China	XueMin Zhang	
10:00-10:30	An Interdisciplinary Approach to Study Pre-Earthquake Processes	Dimitar Ouzounov (online)	
10:30-10:45	Break		
10:45-11:15	The study of the preparation phase of the earthquake from single case studies to worldwide statistics searching for Lithosphere, Atmosphere and Ionosphere Couplings (LAIC)	Dedalo Marchetti (online)	
11:15-11:45	Temporal characteristics of atmospheric electrostatic negative abnormal signal before Ms ≥ 3 earthquake	Tao Chen	
Lunch			
14:00-14:30	Foundations for an Operational Earthquake Prediction System	Angelo De Santis	Peng Han
14:30-15:00	Possible coupling of multiple pre-earthquake phenomena asscocited with the 2011 Tohoku earthquake (Mw 9.0)	Peng Han	
15:00-15:30	An anomaly mechanism of deep resistivity before earthquake	Ji Tang	
15:30-15:45	Break		
15:45-16:15	Crust-mantle electrical structure characteristics of the Longmenshan and its relationship with earthquakes	XuBen Wang	
16:15-16:45	Electromagnetic Multivariate Anomalies Prior to the 7.1 Magnitude 2024 Wushi Earthquake	AisaYisimayi li	
March 3 (Session Room 2 : Seismicity)			
09:00-09:30	Improving earthquake forecasts: from the viewpoint of earthquake predictability quantification	Jiancang Zhuang	Jiancang Zhuang
09:30-10:00	Coupling multiple types of pre-seismic anomaly features to infer key information of the Ms6.0 mainshock in Luxian, Sichuan, China	Jun Hu	
10:00-10:30	The Revised Accelerated Moment Release: a powerful probe for identifying accelerating seismicity	Gianfranco Cianchini	
10:30-10:45	Break		
10:45-11:15	The role of Earth's rotational regime in dynamics of Earth's seismicity	Kasmhat Kolumbetova	

11:15-11:45	Seismic Gap on the Longmenshan Fault Belt	Chuntao Liang	
Lunch			
14:00-14:30	The active fault and seismic hazard map of Thailand	Kavin Kerdpairoj	Jun Hu
14:30-15:00	Deep short-term fault slips following large earthquakes	Chi-Chia Tang	
15:00-15:30	Stress-strain state of the earth's crust in Eastern Kazakhstan based on the analysis of earthquake focal mechanisms and GPS monitoring	Andrey Vilayev	
15:30-15:45	Break		
15:45-16:15	Study on the abnormal signals of satellite data extracted by the Pattern Informatic method related to strong earthquake	YongXian Zhang	
March 3 (Session Room 3 : GNSS & Space)			
09:00-09:30	Statistical Analysis of Characteristics of Seismo-Ionospheric Anomalies: Examples from the Area Near the Southern Sichuan Huaying Mountain Fault Zone	SiRui Li	Jing Liu
09:30-10:00	The influence of solar, seismic and volcanic activity on the Earth's electric field	Sergey Smirnov	
10:00-10:30	The study on seismic ionospheric disturbances observed by CSES and the early warning experiment	Rui Yan	
10:30-10:45	Break		
10:45-11:15	Investigation of the ionospheric disturbance	LiBin Weng	
11:15-11:45	A study for local disturbances of ionospheric TEC prior to strong earthquakes	Jing Liu	
Lunch			
14:00-14:30	Spatial analyses on pre-earthquake ionospheric anomalies and magnetic storms observed by China seismo-electromagnetic satellite in August 2018	Jann-Yenq Liu (online)	Tung-Yuan Hsiao, Wei-Chia Hung
14:30-15:00	The Monitoring of Localize Ionospheric Scintillation and RF Interference by GNSS Network	Tung-Yuan Hsiao	
15:00-15:30	Decoding Land Subsidence and Groundwater Depletion in Taiwan’s Choushui River Alluvial Fan through GNSS and Hydrogeological Synergies	Wei-Chia Hung	
15:30-15:45	Break		
15:45-16:15	Sub-ionospheric VLF perturbations for 2024 M7.5 Noto Peninsula earthquake in Japan	Yasuhide Hobara (online)	

16:15-16:45	Variability of ionospheric perturbations and challenges for early warning	Jaroslav Chum (online)	
March 4 (Session Room 1)			
09:00-09:30	The Variation Characteristics of Delay Times of Seismic Signals in Shallow Slopes Under Rainfall Conditions	YanLin Liu	YanLin Liu, PengYu Zhang
09:30-10:00	Electric current in magnetosheath of the 2024 Mother's Day weekend geomagnetic storm	Shuang Luo	
10:00-10:30	Regional Variations of Ionospheric Current Caused by Different Factors	PengYu Zhang	
10:30-10:45	Break		
10:45-11:15	Downward drifting band-like irregularity in ionospheric F region on a geomagnetic quiet day	Xing Meng	
11:15-11:45	Empirical model of sporadic E critical frequency based on COSMIC radio occultation data	Jun Niu	
Lunch			
14:00-14:30	Global Analytical Simulation of Acoustic-Gravity Wave Propagation	JunZhe Zhang	JunZhe Zhang
14:30-15:00	Simulation of the Acoustic-gravity waves caused by a finite fault	Ting Li (online)	
15:00-15:30	Finite-difference time-domain numerical modelling of acoustic-gravity wave propagation	ZuZhi Zhou	
15:30-15:45	Break		
15:45-16:15	Floods and flood management and its socio-economic impact on Pakistan	Muhsan Ehsan (online)	
March 4 (Session Room 2)			
9:30-10:00	Constraining the Atmospheric Source of the 2022 Hunga Tonga Volcanic Eruption Using Atmospheric-Coupled Rayleigh Waves	ShenJian Zhang	BaiYi Yang, ZhiQiang Mao
10:00-10:30	Ionospheric Electromagnetic Anomalies Characteristics Before the Madoi Earthquake and the their possible coupling mechanism	BaiYi Yang	
10:30-10:45	Break		
10:45-11:15	Near-field Geomagnetic Perturbations Triggered by the M 7.4 Earthquake in Taiwan, China	ZhiQiang Mao	
11:15-11:45	Propagation of earthquake-induced electromagnetic waves in the lithosphere-atmosphere-ionosphere	JiaPeng Zhuang	

Lunch			
14:00-14:30	Seismic shaking recorded simultaneously on TEC and PPP: a case study of the Hualian earthquake	Huan Rao	Pu Wang
14:30-15:00	Carbon Monoxide Anomalies for the 2013 Lushan Earthquake Using MSSA-RST Approach	Pu Wang	
March 2 - March 6 (Poster)			
	Seismal ionospheric doppler shift	Yao-Chun Chen	
	Variation characteristics of satellite infrared radiation time series in the block area before and after several MS≥7.0 earthquakes occurred in the middle-east section of the Bayan Har block	TieBao Zhang	
	Correlating earthquake and geomagnetic anomaly data using machine learning	YunHuan Wu	
	Near-surface electric and mangetic fields respond to the solar storm on 1 December 2023	XiaoYu Jian	
	Study on ELF/ULF Cross-Sphere Propagation Based on the Unstructured Finite Element Method	JieWei Shu	
	Variations in the ionospheric electron density during the M7 earthquake in Central Asia in January 2024	Gulbanu Daurbayeva	
	Analysis of Electromagnetic Field Disturbances Triggered by the Solar Eclipse on June 21, 2020: Insights from Magnetotelluric Observations	TianYa Luo	
	Review of the earthquake Prediction Process and Basis for the 2022 Menyuan Ms6.9 Earthquake, Qinghai	Gang Li	
	Field observation of sub-instable stress state with Load/Unload Response Ratio	HuaiZhong Yu	
	Effects of the 2015 Gorkha Earthquake on Fault Coulomb Stress in Southern Tibet and Its Relation to the Tingri Mw 7.1 Earthquake	Chong Yue	
	The space EM enviroment and natural hazards disturbances revealed by CSES	ZhiMa ZeRen	
	Impact of the Hunga Tonga-Hunga Ha'apai volcanic eruption on Schumann Resonance observed in MT stations in China	Bing Han	
	Characteristics of Gravity Waves During the Occurrence of the Small-Scale Strong	HaiYin Qing	

	Convection Observed by MST Radar		

Conference Route Map

From the Northwest Gate to the conference venue.

From the Eastar International Hotel to the conference venue.

From the conference venue to the dining hall.