



The Arab Conference on Astronomy and Geophysics (ACAG 9) - October 13-16, 2025

Agenda

Start	End						
Monday, October 13, 2025 (Helwan, Cairo, Egypt, NRIAG)							
09:00	10:00		Welcome Reception and Registration (Conference Hall)				
10:00	11:30		Opening Ceremony (Conference Hall)				
11:30	12:00		Break (Conference Hall-Dining Hall)				
12:00	14:00		Keynote: Prof. Agnieszka Slowikowska Galactic and Extragalactic Astronomy (Conference Hall)	Keynote: Prof. Liu Jing Space Dynamics and Satellite Observation (Medwar Hall)		From Publication to Profit: Building your own Business from Science Workshop (NDC Meeting Room 1)	Ground Penetrating Radar Workshop Series: Principles, Methods, and Advanced 3D Data Analysis Workshop (NDC Meeting Room 2)
14:00	15:00		Lunch (Conference Hall-Dining Hall)				
15:00	17:00		Poster Session : <ul style="list-style-type: none">Astomomy 1Geodesy 1	Artificial Intelligence in Geophysics , Astronomy and space science (Medwar Hall)			



The Arab Conference on Astronomy and Geophysics (ACAG 9) - October 13-16, 2025

Agenda

Tuesday, October 14, 2025 (Helwan, Cairo, Egypt, NRIAG)

09:30	11:30		Keynote: Prof. Javier Bossom Solar Physics (Conference Hall)	Keynote: Prof. MAKSIM BANO Applied Geophysics 1 (Medwar Hall)	Keynote: Prof. Katrien Kolenberg Stellar Astronomy (Fahim Hall)		
11:30	12:00		Break				
12:00	14:00		Keynote: Prof. Pierre-Yves Bard Seismology 1 (Conference Hall)	Keynote: Prof. Jay Famiglietti (Virtual) Geodesy 1 (Medwar Hall)		The Ancient Sky and Sacred Temples: Insights into Archaeo-astronomy in Egypt Workshop (NDC Meeting Room 1)	Eyes on the Sky: Tracking Space Debris & Near-Earth Objects with Optical Telescopes Workshop (NDC Meeting Room 2)
14:00	15:00		Lunch (Conference Hall-Dining Hall)				
15:00	18:00		Excursion Trip TBD				



The Arab Conference on Astronomy and Geophysics (ACAG 9) - October 13-16, 2025

Agenda

Start	End	Wednesday, October 15, 2025 (Helwan, Cairo, Egypt, NRIAG)					
09:30	11:30		Keynote: Prof. Ute Weckmann Applied Geophysics 2 <i>(Conference Hall)</i>	Keynote: Prof. Sherif M. Hanafy Seismology 2 <i>(Medwar Hall)</i>	Space weather and space Geophysics 1 <i>(Fahim Hall)</i>	Understanding Geodetic Reference Frames: From Realization to Application Workshop <i>(NDC Meeting Room 1)</i>	
11:30	12:00		Break				
12:00	14:00		Keynote: Prof. Moustafa Baraka Geodesy 2 <i>(Conference Hall)</i>	Keynote: Prof. Evanthia Hatziminaoglou High Energy Astrophysics <i>(Medwar Hall)</i>	Renewable Energy & Sustainability and Environmental Science <i>(Fahim Hall)</i>	Keynote : Prof. Yoshiyuki Kaneda SMART HORIZONS: AI & Emerging Technologies for Multi-Hazard Disaster Resilience in the Arab Region Workshop <i>(NDC Meeting Room 1)</i>	
14:00	15:00		Lunch <i>(Conference Hall-Dining Hall)</i>				
15:00	16:00		Poster Session: <ul style="list-style-type: none">Geodesy 2Seismology 1Solar physics, space weather, and Space Geophysics				



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Agenda

Start	End					
Thursday, October 16, 2025 (Helwan, Cairo, Egypt, NRIAG)						
9:30	11:30		<div>Poster Session<ul style="list-style-type: none">Astonomy 2Seismology 2Applied Geophysics</div>	<div>Space weather and space Geophysics 2 (Medwar Hall)</div>		
11:30	12:00		Break			
12:00	14:00		Closing Ceremony (Conference Hall)			



The Arab Conference on Astronomy and Geophysics (ACAG 9) October 13-16, 2025

Monday, October 13, 2025

Session

Oral-Galactic and Extragalactic Astronomy

Keynote Speaker:

Prof. Agnieszka Slowikowska

Conference Hall

12:00-14:00

Title	Authors	Presenter
Quantifying changes in light pollution	Christopher Kyba	Christopher Kyba
Radio Properties of HII Region in the SARAO MeerKAT Galactic Plane Surveys	James O. Chibueze	James O. Chibueze
Spectral Energy Distribution (SED) Properties of Active and Non-Active Galaxies in the Green Valley	Delphine Nishimwe	Delphine Nishimwe
Ellipticity of the Milky Way globular clusters conditioned by their X-ray luminosities	Georgi Petrov Svetoslav Botev Petko Nedialkov Antoniya Valcheva	Svetoslav Botev
On the role of interstellar dust grains in the formation of large nitrogen bearing species	Zainab Awad	Zainab Awad
Chemical abundances of type-2 AGN in different environments	Mehbuba Ahmed Mohammed and Dr Mirjana Povic	Mehbuba Ahmed
Intra-Day Optical Variability of BL Lacertae During its Recent Active Phase	Ali Takey	Ali Takey
A comprehensive study of the photometric and kinematic characteristics of the Pismis 24 open cluster, utilizing from Gaia DR3 data.	Nasser M. Ahmed	Nasser M. Ahmed

Session

Oral-Space Dynamics and Satellite Observation

Keynote Speaker:

Prof. Liu Jing

Medwar Hall

12:00-14:00

Title	Authors	Presenter
The Egypt-China project for Astronomical Precise Observation	Makram Ibrahim Liu Jing Cheng Haown Cao Li Sun Jian Li Gongqiang A.M. Abdelaziz S.K. Tealib M. Y. Helali	Makram Ibrahim
Sliding Mode Control of Chaotic Motion in Electrodynamics Tethered Satellite System in an Inclined Elliptical Plane	Yehia Abdel-Aziz Ahmed Yousof A.M. Abdelaziz	Yehia Abdel-Aziz
Design and Development of Cold Gas Satellite Propulsion System	Mayar Wael Maher Fahim Ahmed Mohamed Farid Nemnem Ayman Mahmoud	Mayar Wael Maher Fahim
Satellite Tracking from Egypt: Past and Future	Mohamed Helali Makram Ibrahim Liu Jing Cheng Sun Jian	Mohamed Helali
High-Fidelity Simulation of Orbital Maneuvers with J2 Perturbation and Propellant Estimation	S.K. Tealib Ayman Homda Youmna Abu Gabal	Youmna Abu Gabal
A Hybrid Analytical Method for Estimating Collision Probability in Low-Earth Orbit	S.K. Tealib	Shafeeq Kaheal Abd El Aziz Tealib
Optical Survey of Geostationary Satellites Using a Ground-Based Optical Telescope	Ahmed Moursi	Ahmed Moursi



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Monday, October 13, 2025

Session

Poster-Astronomy 1

Poster Area

15:00-16:00

Title	Authors	Presenter
Follow up spectral observations of Nova Cas 2021	Gamal Hamed	Gamal Hamed
MCMC Approach for Orbit Determination of Visual Binaries	Samah Hossny Mohammed Abdelullah El-Essawy Mohamed I. Nouh Helal I. Abdel-Rahman	Samah Hossny Mohammed Abdelullah El-Essawy
Estimating the Stellar Atmospheric Parameters Using Automatic Methods	Samah H. El-Essawy Mohamed I. Nouh Mahmoud Taha Kamel Gadallah Ahmed. H. Ibrahim	Mahmoud Taha
Decade-Long Multiwavelength Monitoring of OJ 248: Insights from Radio to γ -rays	Mona Molham Jose Acosta Pulido Iris alemán	Mona Elhalaby
Adaptive Control of Virtual Synchronous Generator for PV Grid-Connected Systems Incorporating AC/DC Matrix Converters	Doaa Mohammed Eid Mohamed Ismail Mohamed Abdelkareem Islam Helmy	Doaa Mohammed Eid
Comprehensive Photometric and Dynamical Analysis of the Open Cluster FSR-275	Ola Ali Ashraf Tadross	Ola Ali
Journey Through Space with Colors and Games (A Glimpse into Astronomy Education and Outreach Activities in Egypt)	Ola Ali	Ola Ali

Session

Poster-Geodesy 1

Poster Area

15:00-16:00

Title	Authors	Presenter
Improvement Spatial Altimetry in Coastal Zones: Case of the Algerian Coast	Ali RAMI	Ali RAMI
Present-Day Crustal Deformation By GNSS Measurements In The Nile Valley, Egypt.	Mohamed Mahrous Mohamed Rashwan Ali Radwan Mahmoud S. Etman	Mohamed Rashwan
Investigation of urban subsidene in Oran city, Algeria, using PSInSAR technique	kamel hasni Saddam Housseyn Allal	kamel hasni
Deciphering Neotectonic and Climate-Driven Hazards in the HKH Region through Remote Sensing and Machine Learning Insights	Zainab Yousaf	Zainab Yousaf
Rapid Flood Assessment Induced by Climate Change Using Landsat-8, Sentinel-2, UAV Data, and Machine Learning: A Case Study of the Swat Flood, Pakistan	Samreen Javaid	Samreen javaid
Geological Structures Assessment in Wadi Hagul, Northwestern Gulf of Suez, Egypt, Using Gravity and Magnetic Techniques	Mahmoud Etman	Mahmoud Etman



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Monday, October 13, 2025

Session

Oral-Artificial Intelligence in Geophysics , Astronomy and space science

Medwar Hall

15:00-17:00

Title	Authors	Presenter
Forecasting different levels of geomagnetic storms using NARX neural networks	Mostafa Hegy Essam Ghamry Adel Fathy	Mostafa Hegy
Advancements in Geohazard Investigations: Developing a Machine Learning Framework for the Prediction of Vents at Volcanic Fields Using Magnetic Data	Murad Abdulfarraj Ema Abraham Faisal Alqahtani	Essam Aboud
Using Machine Learning for Pi2 Magnetic Pulsation Detection	Mohamed S. Abdalzaher Essam Ghamry	Mohamed S. Abdalzaher
Unveiling Martian Geology through Faster RCNN: Detecting Features and Exploring Habitability	Bibi Ainy Muhammad Ali Ismail Uzair Abid	Bibi Ainy
AstroRAG: An Advanced Chatbot for Addressing Astronomy based Queries	Uzair Abid Talha Zia Dr. Muhammad Ali Ismail Saif ur Rehman	Uzair Abid
6G- blockchain-enabled SAGIN and Federated Learning for Enhanced Earthquake Forecasting	jihad qaddour	jihad qaddour
Characterization of Pc5 Geomagnetic Pulsations Using Satellite and Ground-Based Magnetometer Data	Mohamed Khalifa Essam Ghamry Yoshizumi Miyoshi	Mohamed Khalifa
Modelling of the ionospheric state over Egypt: an artificial intelligence approach	Adel Fathy Haitham Elhussieny Ahmed Arafa Ayman Mahrous Ahmed Islam Okoh Daniel Yuichi Otsuka Patrick Mungufeni	Adel Fathy
Humans, AI, and the New Age of Astrophysics	Rania Benarbia	Rania Benarbia
Efficient Python-Based Analysis of Long-Term UV Radiation Data over Egypt	Ahmed Abulwfa Ashraf Khamees Heba Zenhom	Ashraf Khamees
Multi-Instrument Detection of Travelling Ionospheric Disturbances During Geomagnetic Storms Over Egypt	Hassan Nooreldeen Abdalla Shaker Amira Hussien Ahmed S Farahat Lobna H Basmsm Ahmed Aboulftouf Afaf M. Abd El-Hameed	Ahmed S Farahat



The Arab Conference on Astronomy and Geophysics (ACAG 9) October 13-16, 2025

Tuesday, October 14, 2025

Session

Oral-Applied Geophysics and Seismology in Engineering and Culture Heritage 1

Medwar Hall

Keynote Speaker:

Prof. MAKSIM BANO

09:30-11:30

Title	Authors	Presenter
EM waves and GPR method; Processing, topographic migration and 1D Modeling	Maksim BANO	Maksim BANO
Re-evaluating the J-Field in the Niger Delta, Nigeria, through Seismic and Well data integration before production resumption	Ohakwere-Eze Michael Chidozie	Ohakwere-Eze Michael Chidozie
Integrating aeromagnetic data and Landsat-8 imagery for delineating the Mineralization zones in North Wadi El Allaqi Area, Eastern Desert, Egypt	Sary A. Shamraza Faisal A. Ali Mohamed M. Khalifa Ahmed S. Mohamed	Sary A. Shamraza
Integrated Subsurface Screening: Assessing the CO ₂ Storage Potential in Abu Qir Field, Nile Delta, Egypt	Yousef Ahmed Moustafa Mohamed Hanafy Mahmoud Holail Moutaz Alriahy	Yousef Ahmed
A multi-disciplinary Approach to understanding Waterlogging Propagation in Structurally Complex Arid Zones: A study site at Cairo-Suez District, Egypt	Mohamed Attwa Ahmed Henaish Sara Zamzam Fatma Ramadan Sara Naeem	Mohamed Attwa
Numerical Approach to Assess Ait Idriss Landslide Triggered by Kherrata Earthquake (Northeast Algeria)	Mohamed Djabri	Mohamed Djabri
Crosshole seismic tomography for the potential site of the Iconic Tower at the New Administrative Capital, Cairo, Egypt.	Ashraf Khozym	Ashraf Khozym
High-Resolution Seismic Refraction Tomography to Delineate Subsurface Structures, Dead-Sea, Jordan	Fathy Bahloul	Fathy Bahloul

Session

Oral-Solar Physics

Main Hall

Keynote Speaker:

Prof. Javier Bossom

09:30-11:30

Title	Authors	Presenter
Interplanetary radio emission due to CME-CME interaction	Diyorbek Pulatov Zavkiddin Mirtoshev	Diyorbek Pulatov
Coronal Mass Ejections' Evolution and Geoeffectiveness During Solar Cycles 23, 24 and Early 25: A Focus on Homologous Events	Alshaimaa Saad Hassanin	Alshaimaa Saad Hassanin
Scientific Preparations and Observational Strategy for the August 2, 2027 Total Solar Eclipse in Luxor, Egypt	Yasser A. Abdel-Hadi	Yasser A. Abdel-Hadi
Solar Observations in Bulgaria and collaborations in space weather research	Momchil Dechev R. Miteva P. Markishki G. Latev Susan W. Samwel	Dechev, M.
Understanding the Effects of Source Extent and Pitch-angle Distribution on SEP Transport with the new EPREM-CPP Global Model	Artem Epifanov Kamen Kozarev	Artem Epifanov
Using color indices to determine true dawn in different locations in Egypt	Nasser M. Ahmed A.H. Hassan	A.H.Hassan
The Sun-as-a-Star in an Extended Low-Order Solar Dynamo Model	Katia Becheker Mohamed Reda Bekli Abdeldjalil Zaidi Abdelghani Hadj Hammou Zahir Belhadi	Katia Becheker



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Tuesday, October 14, 2025

Session
Oral-Stellar Astronomy

Keynote Speaker:
Prof. Katrien Kolenberg

Fahim Hall

09:30-11:30

Title	Authors	Presenter
Ground-Based Spectrophotometric Survey of RR Lyrae Stars at Oukaimeden observatory : Linking Atmospheric Variability to Space-Based Pulsation Signatures	BENHIDA Abdelmajid	BENHIDA Abdelmajid
OAE-Egypt: New Frontiers in Astronomy Outreach, Education and Development	Somaya Saad	somaya.saad
Photometric Analysis of four δ Scuti Stars: AE Uma - CW Ser-Cy Aqr-RV Ari	Mohamed Abdel Sabour	Abdel-Sabour
Light Curve Analysis of a Recently Discovered Eclipsing Binary Star: KAO-EGYPT J214258.21+440520.2	Ahmed Essam Gamal M. Hamed	Gamal M. Hamed
The first light curve Solutions and Evolutionary Status of Some Contact Binary Stars using ZTF and TESS data	Ahmed Shokry Abouelfoetouh Elshaer	Ahmed Shokry Abouelfoetouh Elshaer
Monte Carlo Modeling of Composite Polytropes	Mona M. Foda Samah H. El-Essawy Mohamed Aboueisha Mohamed I. Nouh	Mona M. Foda
Quantitative Spectroscopy of Early-Type O5 Dwarf Stars	Diaa, A. Fouda Mohamed I. Nouh	Diaa, A. Fouda
Custom-Built Software Solutions for Coordinated Telescope-Dome Operation and Monitoring of NEOs.	Mohamed Ismail Farag elnagahy Islam Helmy A.M. Abdelaziz	Mohamed ismal



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**Session
Oral-Geodesy 1**

**Keynote Speaker:
Prof. Jay Famiglietti (Virtual)**

Medwar Hall

12:00-14:00

Title	Authors	Presenter
GRACE and GRACE-FO for assessing watershed response to climate variability	Karem Abdelmohsen	Karem Abdelmohsen
Geospatial Analytics for Sustainable Development of the Urban-Rural Interface in Lahore through Remote Sensing and Machine Learning Approaches	Syed Amer Mahmood	Prof. Dr. Syed Amer Mahmood
Triple Time Integration for Unifying the Arab Vertical Reference Frame	Abdelrahim Ruby Wenbin Shen Ahmed Shaker Zhang Pengfei Mostafa Ashry Shen Ziyu	Abdelrahim Ruby
Towards a New National Geodetic Reference Frame for Oman: Insights from Six Years of GPS Monitoring	Amir M. Abolghasem Faisal Al-Balushi Yousuf Al-Wardi Ismail Al-Sheidi Zaid Al-Habsi	Amir M. Abolghasem
The investigation of the accuracy for the transformation between KSA-GRF17 and MTRF2000	M. GOMAA R. ALDURAIBI S. ALZHRANI	M.GOMAA
Long-term Variability of the Climatic Patterns Under Expanding Tropics in the Mediterranean Region	Mohamed Darrag Shuanggen Jin Aalaa Samy Ali M. Radwan	Mohamed Darrag
An Up-to-Date Crustal Deformation Map of Northern Aswan, Egypt Using Geodetic and Remote Sensing Data	Hanan Genidi Mohamed Saleh Abdel-Moneam Mohamed	Hanan Genidi
Integrated Geospatial Assessment of Coastal Vulnerability in Egypt's Nile Delta: Sea Level Rise, Shoreline Change, and Land Subsidence	Mohamed Saleh Ahmed Soha Reda Ibrahim Karim Wagih Marcos	Tuqa Saher Elgendy
HYDROLOGICAL PATTERN OF NASSER LAKE USING SATELLITE DATA (2002-2025)	Mohamed Hussein and Dr Khaled Zahran	Mohamed Hussein



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Tuesday, October 14, 2025

Session Oral-Seismology 1

Keynote Speaker:
Prof. Pierre-Yves Bard

Conference Hall

12:00-14:00

Title	Authors	Presenter
Updated seismic hazard maps for New Syria: to Build Back Better	Nader Akkad Hany Hassan Reda Sbeinati Ilario Tul	Hany Hassan
ANALYSIS AND CHARACTERIZATION OF THE SEISMIC VOLCANIC ACTIVITY OF IRAZÚ VOLCANO (COSTA RICA)	Santori, Constanza Villegas, Raquel Lupari, Marianela	Santori, Constanza
Dubai Smart Seismic Network	Kamal M. Abou Elenean Eman Al Khatibi Abdulla Al Mehairbi	Kamal M. Abou Elenean
Ground Motion Modification by Topographic Irregularities: a case study in Al Jabal Al Akhdar, Sultanate of Oman	Mohamed, A.M.E. El-Hussain, I Deif, A Al Shijbi, Y Ezzelarab, M	Mohamed, A.M.E
Possible damage and losses due to the occurrence of strong earthquakes	Ashraf Adly	Ashraf Adly
Virtual Tomography Concept for Seismic Imaging: a new insight into a high-resolution seismic tomography	Mohamed Farouk Abdelwahed	Mohamed Farouk Abdelwahed
Modern Seismic Hazard Maps for the New Egyptian Building Standards	Mahmoud Elhadidy Mohamed Elgabry Sherif Elhady Sayed Moustafa Hesham Hussein	Mahmoud Elhadidy
Probabilistic seismic hazard assessment in Namibia	Umar Afegbua Kadiri Mako Sitali Midzi Vunganai	Umar Afegbua Kadiri

Session Workshop Archeo-Astronomy

NDC Meeting Room 1

12:00-14:00

Title	Authors	Presenter
Analysis of the royal tombs of the 19th dynasty from a spatial and archeoastronomical perspective	Eman Nousir and Yasser A. Abdel-Hadi	Eman Nousir and Yasser A. Abdel-Hadi
The Astronomical Scenes in Shenhur Temple and their Indications	Yasser A. Abdel-Hadi Ahmed Abbas	Yasser A. Abdel-Hadi
The original Cubit unit as a cosmic code of the Great Pyramid at Giza	Mohamed Jamal Mostafa Ali Yasser A. Abdel-Hadi	Mohamed Jamal Mostafa
Revisited Determination of the Sunrise Orthogonality Dates on the Great Temple of Abu Simbel	Mohamed Jamal Mostafa Ali Yasser A. Abdel-Hadi	Mohamed Jamal Mostafa
دور الجيوفيزياء الأثرية في حفظ التراث وتأصيل الهوية المصرية	SHAABAN ABDELAAL	SHAABAN ABDELAAL
sun orthogonality on karnak temple as a presumption of the place selection	Hassan ahmed aly mohamed Yasser Abdel-fattah Abdel-hadi	Hassan ahmed aly mohamed Yasser Abdel-fattah Abdel-hadi
First Observational Determination of the Tropic of Cancer in Egypt	Yasser A. Abdel-Hadi Ahmed Abulwfa	Yasser A. Abdel-Hadi



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Wednesday, October 15, 2025

Session

Oral-Applied Geophysics and Seismology in Engineering and Culture Heritage 2

Conference Hall

Keynote Speaker:

Prof. Ute Weckmann

09:30-11:30

Title	Authors	Presenter
Predictive mapping of hydrothermal alteration zones in tropical regions areas of northcentral Nigeria using aeromagnetic and remote sensing data	Abubakar Adamu Abdulrahman Idris Augie Abdulganiyu Yunusa	Abubbakar Adamu
Archaeological investigations to identify the extent of "The Rise of Aten" city and the remains of "Amenhotep III Temple" in the Theban Necropolis, Luxor, Egypt	Ahmed Awad Abdellatif Younis Magdy Atya Afifi Rohim Afifi Gad EL-Qady Zahi Hawass	Gad El-Qady
Characterization of Dyke alignment using Electrical Resistivity Tomography	Fathy Bahloul Ashraf Khozym	Fathy Bahloul
GPR and ERT applied to diagnose damages of the mosaic mural "Tupahue" in Santiago, Chile.	Maksim BANO	José ORTEGA-RAMIREZ
INTEGRATION OF ACTIVE AND PASSIVE SEISMIC METHODS FOR SITE CHARACTERIZATION: A CASE STUDY IN NEW ASWAN INDUSTRIAL CITY, EGYPT	Maha Abdelbaset Abdelnasser Mohamed Awad Omran Rashad Sawires Mostafa Thabe	Maha Abdelbaset Eliwa
Structural Origin of Siwa Oasis, Egypt: Insights from Magnetic and Magnetotellurics (MT) Data	Mohamed Abdel Sabour Aldeep Mamdouh Soliman Hany, S. A. Mesbah Wael R. Gaweish Ahmed M. Ali Naser Meqbel	Mohamed Abdel Sabour Aldeep

Session

Oral-Seismology 2

Medwar Hall

Keynote Speaker:

Prof. Sherif M. Hanafy

09:30-11:30

Title	Authors	Presenter
Detection of seismo-ionospheric precursors for moderate shallow earthquakes in Greece using a statistical study	Karima BENGHANEM Abdeslam ABTOUT	Karima BENGHANEM
Impact of Felt Earthquakes and Strong Winds on Dubai Skyscrapers using Dubai Municipality's Smart Seismic Systems	Kamal M. Abou Elenean Eman Al Khatibi Abdulla Al Mehairbi	Kamal M. Abou Elenean
A multi-scenario seismic hazard assessment of North Libya.	Hameed Alfurjani Mahmoud Salah Elhadidy	Hameed Alfurjani
Oman Strong Motion Network (OSMN) and Site-Specific Characterization of Monitoring Stations in Muscat Region	Issa El-Hussain Adel Mohamed Ahmed Deif Yousuf Al-Shijbi Abdullah Ansari Majed Al Musalhi	Issa El-Hussain
Time-Domain Moment Tensor Analysis of Local Earthquakes in Ras Nasrani: Parameter Estimation and Uncertainty Quantification	Mohamed A. Taha Sayed SR Moustafa	Mohamed Taha
Seismic Q Factor and Site Effects Estimation in Northeastern Egypt Using the Generalized Inversion Technique (GIT)	Hamada Saadalla	Hamada Saadalla
Ground motion simulation and predication in the northern Egypt	Hend Lotfy Abd El-Naser Helal Amir M. S. Lala Hesham Hussien Asem Salama	Hend Lotfy
The effect of seismic source spatial distribution on the level of seismic hazard in Al-Madinah Region, Saudi Arabia	Mohamed Ezzelarab Ali Abdelfattah Abdullah Omer Bamousa Hassan Alzahrani Thomas Oommen	Mohamed Ezzelarab



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Wednesday, October 15, 2025

Session

Oral-Space Weather and Space Geophysics 1

Fahim Hall

09:30-11:30

Title	Authors	Presenter
Solar Energetic Particle Events and Their Influence on Aerosols from Egypt to the Poles	Mohammed AbuBakr Ali Naglaa Zanaty Nourhan Hesham Dalia Elfiky	Mohammed AbuBakr Ali
ULF magnetic pulsation observed on the ground and in space	Essam Ghamry	Essam Ghamry
Global Climatological Evaluation of Ionospheric Models Using In-situ Electron Density Measurements from Swarm Satellites	Paul Baki	Paul. Baki
Integrated Pi2 Pulsation Detection and Analysis Using Ground-Based and Multi-Satellite Observations	Islam Hawash Prof. Dr. Essam Ghamry Prof. Dr. Susan Samwel Prof. Dr. Muhamed Yousef Dr. Hala El-Desoky	Islam Hawash
Investigation of the Ionospheric Response to Intense Geomagnetic Storms Over Egypt based on Multi-Instrument Observations	Hassan Noor Eldeen Lobna H. Basmsm Ahmed S. Farahat Afaf M. Abd El-Hameed Amira Hussien Abdalla Shaker O. M.	Lobna H. Basmsm
The Impact of Solar Activity on the Earth's Magnetic Field: An Analytical Study	Aalaa Samy	Aalaa Samy
Analysis of geomagnetic pulsations during solar cycle 24	Abdelmoamen Ahmed Mohamed Mostafa Nosier Muhammed Yousef Omar Essam Muhammed Ghamry Ramy Mawad Hala El-	Abdelmoamen Ahmed Mohamed Mostafa Nosier

Session

Oral-Geodesy 2

Keynote Speaker:

Prof. Moustafa Baraka

Conference Hall

12:00-14:00

Title	Authors	Presenter
Advanced Geodetic Deformation Analysis Based on Multi-Sensor Data Fusion	Belhadj Attaouia Chouicha kaddour Kahlouche Salam	Belhadj Attaouia
Estimating the Isostatic Response of the Earth's Crust Employing the Principle of Inverse Isostasy	Hussein A. Abd-Elmotaal Norbert Kühtreiber	Hussein A. Abd-Elmotaal
Geodetic and seismological Evidence of triggered seismicity in the Qarun oil field west of the Dahshour seismic source, Cairo, Egypt.	Mohamed Saleh Mahmoud Elhadidy Soha Hassan Hamada Saadallah	Mohamed Saleh
Preliminary Investigation of A Gravimetric Approach for Fault Detection: A Case Study	Bagas Triarahmadhana	Bagas Triarahmadhana
Assessment of Commercial GNSS Radio Occultation Performance from PlanetiQ Mission	Mohamed Zhran Ashraf Mousa	Mohamed Zhran
Accuracy Assessment of Recent Geopotential Models for Accurate Geoid Determination at Dubai	Ossama Mohamed Eman Ahmad El Falasy khaled Zhran	Ossama Mohamed
Artificial Intelligence (AI)-Driven Design and Implementation of a Low-Cost Global Navigation Satellite System (GNSS) for Robust and Adaptive Positioning	Ahmed Gomaa Ashraf Mousa	Ahmed Gomaa



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Wednesday, October 15, 2025

Session
Oral-High Energy Astrophysics

Keynote Speaker:
Prof. Evanthia Hatziminaoglou

Medwar Hall

12:00-14:00

Title	Authors	Presenter
On the formation of the persistent Be/X-ray binaries fed by accretion discs	Ali Taani	Ali Taani
AI Hybrid Learning Models and its Rule in Strengthening Astronomy Education	A.B. Morcos	A.B. Morcos
Planetary science and exoplanets	AKATUKUNDA DORAH	AKATUKUNDA DORAH
Designing A Toomre Parameter for A Keplerian, Thin, Axisymmetric, Pebble-Only, Protoplanetary Disk with an Exploration of Proportionalities and Relations with Radiative,	Nour A. Nabhan	Nour A. Nabhan
A search for millimeter Class I methanol masers towards Cygnus-X molecular cloud using the NASCENT-stars large program	Mohamed Said Darwish	Mohamed Darwish
X-RAY FLUX VARIABILITY OF BL LACERTAE OBJECT 1ES1426+428 WITH SUZAKU SATELLITE	Saad Nasser Mohamed	Saad Ata
Fractional Relativistic Isothermal Spheres in General Relativity	Mohamed S. Aboueisha Mohamed I. Nouh Emad A. -B. Abdel-Salam Mona Foda	Mohamed S. Aboueisha
Electromagnetic Phenomena Induced by Dust Particle Dynamics in Planetary Atmospheres: Laboratory Simulations and Field Observations	Mohamad Abdelaal	Mohamad Abdelaal



The Arab Conference on Astronomy and Geophysics (ACAG 9) October 13-16, 2025

Wednesday, October 15, 2025

Session

Oral-Renewable Energy & Sustainability and Environmental Science

Fahim Hall

12:00-14:00

Title	Authors	Presenter
Assessing Water and Sediment Heavy Metals with Radiometric Core Dating for Environmental Reconstruction: A North African Lagoon Case Study (Marchica Lagoon)	anas bibot	anas bibot
A Study on the Effects of Gamma and Electron Radiation on DSSC Thin Films	Sameh Hamzawy, H.M.S. Hamed, G. Ghabiri, Said Moawwad, A. A. Abdelaziz, Aierken Abuduwayiti	Sameh Hamzawy
Hydrochemistry, Bacterial Contamination, and Isotopic Composition of Sulfur and Mineral Springs, Helwan, Egypt	Usama Massoud Abbas Mohamed-Abbas Ayman Abdellattif El Said Ragab Gad El Qady Mahmoud Khalil	Usama Massoud
Analyzing Terrestrial Carbon Storage in Northern Pakistan: Assessing the Role of Afforestation Using Google Earth Engine and the InVEST Modeling Framework	Syed Amer Mahmood	Syed Amer Mahmood Muhammad Haseeb
Assessment of Gridded and Reanalysis Precipitation Data in the Upper Indus Basin Using Climate Forecast System Reanalysis	Shaiza Farooq	Shaiza Farooq
Geothermal Heat Flow in Egypt Derived from Lithospheric Thickness: Evidence from Curie Isotherm and LAB Depths	Moataz Sayed	Moataz Sayed
Assessing and Correcting ERA5 Reanalysis Data for Reliable IDF Curve Development in Ungauged Tunisian Basins	Hanen GHANMI Besma Traya Hamouda Dakhlaoui	Hanen GHANMI
Coupled magnetic and geochemical characterization of soil contamination in the Bou Caid area, Algeria	Lynda Attoucheik Yamina El Meddahi Neli Jordanova France Lagroix Said Maouche Abdelhak Boutaleb	Lynda Attoucheik
A Python-Based Machine Learning Framework for Forecasting Surface Solar Radiation	Ahmed Abulwfa Ashraf Khamees Heba Zenhom	Ahmed Abulwfa

Session

Poster-Geodesy 2

Poster Area

15:00-16:00

Title	Authors	Presenter
Climate Change Effects on Snow Cover and Hydrological Cycles in Gilgit-Baltistan, Pakistan: A Comparative Analysis	Hania Arif Syed Amer Mahmood	Hania Arif
Monitoring Groundwater Depletion in Northern Egypt Using GRACE and GRACE-FO Data	Mostafa Elwan	Mostafa Elwan
Analysis of Recent Deformation of the African Plate (Nubian and Somali) Based on GNSS Time Series	Saddam Housseyn Allal kamel hasni	Saddam Housseyn Allal
Digitization of Qaitbay Fort in Alexandria (884AH/ 1479 CE) — Simplification of Modelling Techniques to Safeguard Vulnerable Cultural Heritage	Abdelhamid Elbshbeshi	Abdelhamid Elbshbeshi
Neural Network-Based Decision Support System for Land Use, Land Cover, and Agricultural Information Retrieval via Geospatial Integration	Hafiza Sayyeda Farah Batool	Hafiza Sayyeda Farah Batool



The Arab Conference on Astronomy and Geophysics (ACAG 9) October 13-16, 2025

Wednesday, October 15, 2025

Session

Poster-Seismology 1

Poster Area

15:00-16:00

Title	Authors	Presenter
GEO-PRO: The Simulation of a One-Channel Velocity Sensor Designed for Earthquakes Measurement	Ramadan Desouku	Ramadan Desouky
CRUSTAL SEISMICITY IN NORTHERN PATAGONIA, ARGENTINA	Santori, Constanza Rivas, Carolina Bilbao, Ines	Santori, Constanza
The Quiescence Intervals and Seismic Cycles of the Abu Dirwa Fault Seismicity and Their Implications with Lake Nasser Water Level South of the Aswan High Dam	Gaber Hassan Hassib	Gaber Hassib
Machine learning Techniques to detect quarry blasts and mitigate their impact on vulnerable communities	Ghada Ali	Shimaa.H. Elkhoully
Machine Learning Approaches for Identifying Earthquake preceded by Precursors and Non-Preceding Events	Ghada Ali Ali G. Hafez Sayed Hasaneen Ahmed Mohamed	Ghada Ali
AI Approaches for Predicting Dam Piezometric Water Levels: A Case Study of Bouhanifia Dam	BENYAHIA SLIMANE ROUISSAT BOUCHRIT SMAIL NADIA TOUATI FATAH BENDAOUDI Latifa	BENYAHIA SLIMANE

Session

Poster-Solar Physics , Space Weather and Space Geophysics

Poster Area

15:00-16:00

Title	Authors	Presenter
VLF Signal Propagation During X-Class Solar Flares: Observations and Simulations	KERRACHE FETHIA Benmorsli Djihane Nait Amor Samir Ikhlef Rabah	Kerrache fethia
Direct Observational Evidence on a CME Deflection by a Complex Interaction between Magnetic Cloud (MC) and Corotating Interaction Region (CIR) occurred on 16 November	Amaal Mohamed	Amaal Mohamed
the response to solar events of the ionospheric vTEC at high latitudes using GNSS data	aimouche nihad kheira	aimouche nihad kheira
Dynamic Calibration of NeQuick 2 Using Real-Time EUV Flux Proxies for TEC Modeling During Solar Variability	Manar M. Abady H. M. El-Zafarani	Manar Mohamed Abady
Ultra Low Altitude Frozen Orbits around the Moon	osama ramla Fawzy Ahmed Abd Elsalam	osama ramla
The Influence of Magnetic Clouds (MCs) and Non-Magnetic Clouds (non-MCs) on Space Weather During Solar Cycles 23 and 24: An Analysis of Geoeffectiveness	Eid Amin Amaal Mohamed Abdelrazek M. K. Shaltout Ali G. A. Abdelkawy Mohamed. M. Beheary Rabab. Abdelhamid	Amaal Mohamed
Thermoelectric properties and piezoelectric voltage coefficient of Bi ₂ Mn ₄ O ₁₀ prepared by mechanochemical method	Shereef A. Fareed Makram Ibrahim Ahmed E. Hannora M. M. El-Desoky	Shereef A. Fareed
Correlation Study Between Solar Radio Flux (F10.7) and Total Solar Irradiance (TSI)	Nouhaila Bouhadi	Nouhaila Bouhadi
VLF Signal Analysis of Ionospheric Disturbances Triggered by the Tonga Eruption	Djihane Benmorsli Hanane arif Samir Nait Amor Fethia Kerrache RabAh Ikhlef	Djihane Benmorsli
Photospheric Motions and Flux Rope Reformation: A Pathway to Homologous Confined Eruptions	Ahmed Abulwfa Alaa Fouad Alshaimaa Hassanin Khaled Mohamed	Khaled Mohamed



The Arab Conference on Astronomy and Geophysics (ACAG 9) October 13-16, 2025

Thursday, October 16, 2025

Session

Poster-Applied Geophysics and Seismology in Engineering and Culture Heritage

Poster Area

09:30-10:30

Title	Authors	Presenter
Exploring Pre-Dynastic Era Archaeology in Aswan Using Ground-Penetrating Radar and Vertical Magnetic Gradient Techniques	Mahmoud Mekkawi Ashraf khuzium Ahmed Kubbia	Mahmoud Mekkawi
TDEM-DC Resistivity Joint Inversion and Land Magnetic Survey for Groundwater Exploration in Ecoviera City, Future of Egypt Project, New Delta, Giza, Egypt	Mohamed Ibrahim Mohamed Ahmed Sultan Awad Sultan Araffa Tarek Arafa-Hamed Taha Tawfik Taha Rabeh Ahmad Muhammad	Mohamed Ibrahim Mohamed Ahmed
Reinventing Grounding Systems: Experimental and Simulation for Optimizing Soil Composition, Thickness, and Replacement under Fault Performance	Mahmoud Ramadan Hefny Ali	Mahmoud Ramadan Hefny Ali
Assessing Drought Conditions in Algeria via GRACE-DSI and Their Influence on Dam Reservoir Levels	BENYAHIA SLIMANE ROUISSAT BOUCHRIT SMAIL NADIA TOUATI FATAH BENARABA NAWAL	BENYAHIA SLIMANE
Environmental implications of magnetic heavy metal pollution in the industrial area of 6th of October city	Reem Mostafa Alshymaa Guda Ahmed Awad Nouran Salama	Reem Mostafa
Assessment of Global Solar Radiation over Egypt Using Measured and Reanalysis Data (1980–2020)	Ashraf Shaban Khamees usama ali Rahoma Amir hussen Hassan	Ashraf Shaban Khamees
Utilizing precise GPR scanning to drive archaeological tombs of ancient necropolis remains at Gebel El-Siwa in Kharga Oasis, Egypt	Khamis Mansour Ali M. Radwan Abdelhamid Elbsebeshi Dalia Gamal Ahmed Wahba Gebely Abu El-Kheir Mohamed Rashwan	Khamis Mansour
Geophysical exploration for mineralization using Remote sensing and magnetic analysis in Wadi Queih area, Eastern Desert, Egypt.	Arwa Sameer Ibrahim Alkholy Ahmed Saleh Sultan Awad Sultan Araffa Sami Hamed Abdel Nabi Karam S. I. Farag Mohamed Aldeep	Arwa Sameer Ibrahim Alkholy
A modified predictive exploration model for Au mineralization	Maha Abdelazeem Mohamed Gobashy	Maha Abdelazeem
Geophysical Investigation of Subsurface Archaeological Extensions at Karkour Area, Helwan, Egypt	Marwa Shaheen Tareq Abdallatif Abbas Mohamed Hesham Zahra Ahmed Kotb Mohamed salem Wael R. Gaweish Ahmed	Marwa Shaheen
Microscopic and mineralogical study of gold and associated elements in the Al-Urf-Umm Balad area, Egypt, using geophysical studies	Mohamed Hussein	Mohamed Hussein
Mapping and evaluation of Shallow Groundwater Resources in Al-Hofuf, Eastern Saudi Arabia, Using Vertical Electrical Sounding for Sustainable Water Management	Saad S. Alarifi Kamal Abdelrahman Khaled Al-Kahtany Alfahad A. Almakrami	Khaled Al-Kahtany



The Arab Conference on Astronomy and Geophysics (ACAG 9) October 13-16, 2025

Thursday, October 16, 2025

Session

Poster-Astronomy 2

Poster Area

09:30-10:30

Title	Authors	Presenter
Axisymmetric Equilibria of Differentially Rotating $n=1.5$ Polytropes Under Arbitrary Angular Velocity Distributions	H. M. El-Zafarani	Hazem Mohamed Elzafarani
Direct imaging of exoplanets with Coronagraphy	salma Makhtich	salma Makhtich
A deep investigation of the poorly studeid open clster Barkhatova 2 using VRI CCD and Gaia DR3	Reda Elbendary E.G. Elhossieny	Reda Elbendary
A Detailed Investigation of the Star Clusters in IRAS 00117+6412 Based on Astrometric Data from Gaia DR3	Wageeh Ahmed Badawy	Wageeh Ahmed Badawy
Fusion Cross Sections and Astrophysical S-Factors of Carbon and Oxygen Reactions at Sub-Barrier Energies.	Abdelrahman Hussam Khaled Muhammed AlShaimaa Saad Hassanien	Abdelrahman Hussam
Exploring the Connection Between Soft Excess Temperature and Black Hole Mass in quasars	Amr.I.Basuny Ashraf A. Shaker N. Z. Darwish Y. Abdou SH. M. Shehata	Amr.I.Basuny
A Multi-Mission Study of Spectral Variability in Eight Anomalous AGN Sources	Shahd Y. Farahat Baraa Hany SH. M. Shehata R. Misra	sherehan shehata

Session

Poster-Seismology 2

Poster Area

09:30-10:30

Title	Authors	Presenter
Subsurface velocity structures at the Egyptian seismological network stations retrieved by diffuse field assumption for Earthquakes	Khaled Omar	Khaled Omar
Machine Learning and Remote Sensing based Neotectonic Signals from Hindukush: Insights from 3-Fractals and Surface Dynamics	Anam Munawwar	Anam Munawwar
Seismic site characteristics and soil classification for the proposed area of New Akhmem City, Sohag - Egypt.	Asmaa Nasser Mahmoud Edrees Raafat El SHafie Fat-Helbary Mohsen Mohamed Attia Ahmed Hamed	Ahmed Hamed
A study of seismic hazard and energy released from earthquakes along the eastern and western coasts of the Red Sea in Egypt and Saudi Arabia	Sayed Abdallah Dahy	Sayed Abdallah Dahy
Egyptian National Strong Motion Network (ENSM) In Southern Sinai, Egypt	Shaimaa Maamoun Khair	Shaimaa Maamoun Khair
Aswan seismic network, the challenges and there impacts on the seismic activity monitoring in Aswan area, Egypt	Abdelnasser Mohamed Hamada Saadalla	Abdelnasser Mohamed



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Thursday, October 16, 2025

Session

Oral-Space Weather and Space Geophysics 2

Medwar Hall

09:30-11:30

Title	Authors	Presenter
Observation and modeling of a geo-effective event observed on 2011 May 28 from the solar surface to 1 au	Nishu Karna Tatiana Niembro	Nishu Karna
Comparative analysis of the regional effects of three major geomagnetic storms on Earth's magnetic field response during solar cycle 25	WALID BADENJKI Essam Ghamry	WALID BADENJKI
The influence of solar and terrestrial natural hazards on the Earth's magnetic field	Fatma kotb Essam Ghamry Magdy Youssef	Fatma Kotb
Predicting the Number of Sunspots for Solar Cycle 25 through the Facebook Prophet Model	Helal I. Abdel Rahman W. A. Badawy	Helal I. Abdel Rahman
Stream Interaction Region and Interplanetary Coronal Mass Ejections: two case studies	SOLAIMAN ELSAFTY essam elghamry Shaimaa Saad mohamed saleh elnawawy	SOLAIMAN
Interplanetary origin of Geomagnetic storms during solar cycle 25	Susan W. Samwel Rositsa Miteva	Susan Samwel
Ionospheric response during the commencement and recovery stages of the May and October 2024 storms	Chukwuma Anoruo Paulo Roberto Fagundes Valdir Pillat	Chukwuma Anoruo