

STRUCTURAL GEOLOGY AND GLOBAL TECTONICS

TO LITHOSPHERE EVOLUTION AND MANTLE GEODYNAMICS

24-26 APRIL 2019, TRABZON, TURKEY



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THE EARTH IS THOUGHT TO HAVE BEEN FORMED ABOUT 4.6 BILLION YEARS AGO. HOWEVER, THE DETAILS OF HOW IT FORMED AND SHAPED ARE CONTROVERSIAL SCIENTIFIC TOPICS, BOTH IN TODAY'S WORLD AND IN THE PAST. TODAY, IT IS VERY WELL KNOWN THAT THE EARTH'S OUTER LAYER IS COMPOSED OF LITHOSPHERIC (OR TECTONIC) PLATES THAT INCLUDE CRUST AND RIGID UPPERMOST SECTION OF THE MANTLE, AND THAT MOVE RELATIVE TO EACH OTHER. THE MOVEMENT OF THESE PLATES IS RESPONSIBLE FOR MOST GEOLOGIC EVENTS SUCH AS MAGMATISM, METAMORPHISM, THE OPENING AND CLOSING OF OCEANS, COLLISIONS OF CONTINENTS, MOUNTAIN BUILDING AND EARTHQUAKES.

WE HAVE ORGANIZED AN INTERNATIONAL SYMPOSIUM ON "STRUCTURAL GEOLOGY AND GLOBAL TECTONICS: LINKS TO LITHOSPHERE EVOLUTION AND MANTLE GEODYNAMICS" THAT WILL BE HELD IN PROF. DR. OSMAN TURAN CULTURE AND CONGRESS CENTER OF KARADENIZ TECHNICAL UNIVERSITY IN TRABZON (TURKEY) WITH THE PARTICIPATION OF OUTSTANDING SPEAKERS OF STRUCTURAL GEOLOGY, GLOBAL TECTONICS, PETROLOGY, MANTLE GEODYNAMICS AND LITHOSPHERE EVOLUTION.

THE AIMS OF THIS SCIENTIFIC ORGANISATION ARE:

- *TO BRING TOGETHER YOUNG AND SENIOR RESEARCHERS WITHIN A FRIENDLY AND STIMULATING SETTING.
- *TO REVIEW AND DISCUSS RECENT DEVELOPMENTS IN STRUCTURAL GEOLOGY, GLOBAL TECTONICS, PETROLOGY, MANTLE GEODYNAMICS, LITHOSPHERE EVOLUTION AND RELATED FIELDS.
- *TO FOSTER MULTIDISCIPLINARY AND INTERNATIONAL RESEARCH COLLABORATIONS.

ORAL PRESENTATIONS WILL BE LIMITED TO INVITED SPEAKERS. HOWEVER, WE ENCOURAGE ALL PARTICIPANTS FOR ABSTRACT SUBMISSION FOR POSTER PRESENTATIONS IN TOPICS RELEVANT TO THE THEME OF THE SYMPOSIUM.

ABSTRACTS OF BOTH ORAL AND POSTER PRESENTATIONS WILL BE PUBLISHED IN THE SYMPOSIUM BOOK.

ALL PRESENTATIONS WILL BE SIMULTANEOUSLY TRANSLATED INTO TURKISH.

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CONFERENCE CENTER AND HOTEL

AIRPORT

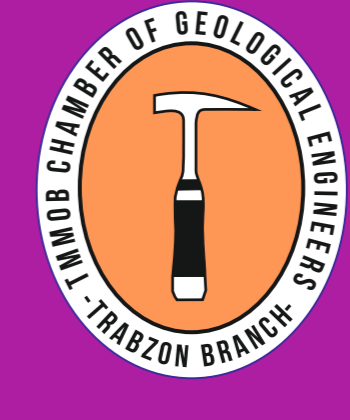
CAMPUS AREA



KORU HOTEL



AN INTERNATIONAL WORKSHOP ON



STRUCTURAL GEOLOGY AND GLOBAL TECTONICS: LINKS TO LITHOSPHERE EVOLUTION AND MANTLE GEODYNAMICS



24-26 APRIL 2019, TRABZON, TURKEY



SCIENTIFIC PROGRAM

24 APRIL 2019, WEDNESDAY

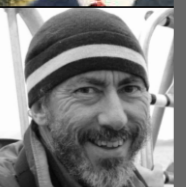
Karadeniz Technical University, Prof. Dr. Osman Turan Culture and Congress Center

08:00 - 09:00 **Registration**

09:00 - 09:30 **OPENING CEREMONY**

Chair person: Prof. Dr. Necati TÜYSÜZ

09:30 - 10:10 **When did plate tectonics begin?** Prof. Dr. T. Mark HARRISON 

10:10 - 10:40 **Does the Earth have a pulse? Constraints from the geological record and implications for tectonic processes** Prof. Dr. Peter A. CAWOOD 


10:40 - 11:00 **Coffee / tea break**


11:00 - 11:40 **Quantification of geological evidence for the operation of plate tectonics throughout the Archean; Records from Archean Paleo-Plate Boundaries** Prof. Dr. Timothy KUSKY 


11:40 - 12:10 **Operation of plate tectonics throughout the Archean: Evidence from Greenland** Prof. Dr. Ali POLAT 

12:00 - 13:30 **Lunch**

Chair person: Prof. Dr. Orhan TATAR

13:30 - 14:00 **Subduction initiation, ophiolites, and the birth of island arcs** Prof. Dr. Julian PEARCE 

14:00 - 14:30 **Metamorphism, supercontinents and global geodynamics** Prof. Dr. Michael BROWN 

14:30 - 15:00 **Paleomagnetism and continental tectonics: A celebration of contributions mixed with challenges and limitations** Prof. Dr. John GEISSMAN 

15:00 - 15:30 **Coffee / tea break**

Chair person: Prof. Dr. Cüneyt ŞEN

15:30 - 16:10 **Structure of the cratonic lithosphere and plate tectonics** Prof. Dr. Irina ARTEMIEVA 

16:10 - 16:50 **Orogeny and mantle geodynamics** Prof. Dr. Claudio FACCENNA 

16:50 - 17:20 **Basin formation and mantle processes** Prof. Dr. Hans THYBO 

17:20 - 17:50 **Pacific type orogeny and orogenic belts** Prof. Dr. Inna SAFONOVA 


19:30 **Cocktail**

25 APRIL 2019, THURSDAY

Karadeniz Technical University, Prof. Dr. Osman Turan Culture and Congress Center


Chair person: Prof. Dr. Osman PARLAK

09:00 - 09:30 **Blueschists, eclogites and the evolution of plate tectonics** Prof. Dr. Michael BROWN 

09:30 - 10:00 **From continental subduction to orogenic collapse: Tracing the evolution of orogenic belts using igneous geochemistry** Prof. Dr. Julian PEARCE 

10:00 - 10:30 **Coffee / tea break**


10:30 - 11:10 **The SW Indian Ridge, the Marion rise, and remelting Gondwana** Prof. Dr. Henry J.B. DICK 


11:10 - 11:50 **Isotopic and trace element data from the granites and estimate of paleo-crustal thickness** Prof. Dr. Donald J. DePAOLO 

12:00 - 13:30 **Lunch**

Chair person: Prof. Dr. Nilgün GÜLEÇ


13:30 - 14:10 **Heat producing elements in the continental lithosphere and testing models of second continents** Prof. Dr. William McDONOUGH 


14:10 - 14:50 **Fission track thermochronology, continental extension and the breakup of continents in global tectonics** Prof. Dr. Andrew J.W. GLEADOW 


14:50 - 15:30 **The Late Cenozoic exhumation history of the Himalaya: Insights from (U-Th)/He thermochronometry** Prof. Dr. Kip HODGES 


15:30 - 16:00 **Coffee / tea break**

Chair person: Dr. Mustafa SARIBUDAK

16:00 - 16:30 **Structural inheritance in orogenic belts** Prof. Dr. Robert W.H. BUTLER 

16:30 - 17:10 **Sedimentary basins of the Baikal rift zone and Cenozoic intracontinental tectonics** Prof. Dr. Sergey KRIVAGONOV 

17:10 - 17:40 **The importance of fault interactions in the long-term and short-term growth of fault systems** Prof. Dr. John WALSH 


17:40 - 18:10 **Forecasting the propagation paths of rock fractures** Prof. Dr. Agust GUDMUNDSSON 

26 APRIL 2019, FRIDAY

Karadeniz Technical University, Prof. Dr. Osman Turan Culture and Congress Center


Chair person: Prof. Dr. Irina ARTEMIEVA


09:00 - 09:40 **Continental crust formed in continental collision zones** Prof. Dr. Di-Cheng ZHU 

09:40 - 10:10 **Continental crustal volume, thickness and area, and their geodynamic implications** Prof. Dr. Peter A. CAWOOD 

10:10 - 10:40 **Coffee / tea break**


10:40 - 11:10 **Tectonic erosion of Pacific type convergent margins** Prof. Dr. Inna SAFONOVA 


11:10 - 11:40 **Construction of subcontinental lithospheric mantle at convergent plate margins since the Paleoproterozoic: Geochemical evidence from British Columbia, Canada** Prof. Dr. Ali POLAT 

11:40 - 12:10 **Rifting as part of the Wilson cycle** Prof. Dr. Hans THYBO 

12:10 - 13:30 **Lunch**

Chair person: Prof. Dr. Erdin BOZKURT


13:30 - 14:00 **Magnetic fabrics of geologic materials and applications in continental tectonics** Prof. Dr. John W. GEISSMAN 


14:00 - 14:40 **The use of foliations in structural geology: Problems and promises** Prof. Dr. Cees W. PASSCHIER 


14:40 - 15:10 **Statistical physics of fracture networks and fault zones** Prof. Dr. Agust GUDMUNDSSON 

15:10 - 15:40 **Coffee / tea break**

Chair person: Prof. Dr. Ali POLAT

15:40 - 16:10 **How surface processes can modulate deformation in thrust belts** Prof. Dr. Robert W.H. BUTLER 

16:10 - 16:50 **Fault-controlled fluid flow and the formation of sediment-hosted mineral deposits** Prof. Dr. John WALSH 

16:50 - 17:20 **Reliability of detrital zircon in provenance studies: A case from the Menderes Massif, Western Turkey** Prof. Dr. Erdin BOZKURT 

17:20 **CLOSING CEREMONY**