PROGRAM (ORAL)

PUBLIC LECTURES

Chair: Keiji TAKEMURA; Room: Conference Room

October 31 (Sunday)

15:00 - 15:50 Fujio MASUDA (Kyoto University):
Climates throughout Geologic Time

16:00 - 16:50 Hideji KIDA (Kyoto university):
From Numerical Weather Predictions to Climate Projections

presented in Japanese

OPENING: The Active Geosphere in Convergent Region

Chair: Keiji TAKEMURA; Room: Conference Room

November 1 (Monday)

13:30 - 14:00 Shigeo YODEN (Leader of KAGI, Kyoto University):
Purpose of the COE program

GENERAL SESSION

Chair: Keiji TAKEMURA; Room: Conference Room

November 1 (Monday)

14:00 - 15:00 *Invited Lecture 1:*
<G1> John EICHELBERGER (University of Alaska Fairbanks)
Volcanoes: Windows into the Active Geosphere

15:00 - 15:30 -----*coffee break*-----

15:30 - 16:30 *Invited Lecture 2:*
<G2> Marvin GELLER (Stony Brook University)
Unraveling Solar, Volcanic, and Anthropogenic Influences on Staratospheric Ozone

POSTER SESSION

Chair: Masato SHIOTANI; Room: Conference Room

November 1 (Monday)

16:30 - 18:00 The program of poster session is on page 10 and 11.
This session will be held in the order of number indecated in the program.

ORAL SESSION 1: Volcanic Impacts on the Atmosphere

Chair: Takehiko SATOMURA; Room: Conference Room

November 2 (Tuesday)

8:30 - 9:10 *Invited Lecture 3:*
<J1-01> Matthew H. HITCHMAN (University of Wisconsin – Madison)
Volcanic Aerosol and the Circulation of the Stratosphere.

9:10 - 9:50 <J1-02> Masayuki TAKIGAWA
Simulation of Stratospheric Sulfur Aerosol using a CCSR/NIES AGCM with Coupled Chemistry: The Impact of Pinatubo Aerosol on Climate.

9:50 - 10:10 <J1-03> Masanori NIWANO
Variations of Mean Meridional Circulation in the Tropical Lower Stratosphere.

10:10 - 10:40 -----*coffee break*-----

10:40 - 11:10 <J1-04> Masao MIKAMI
Aeolian Dust Impact on the Climate.

11:10 - 11:40 <J1-05> Tetsuya TAKEMI
Explicit Simulations of Convective-Scale Transport of Mineral Dust in Severe Convective Weather

11:40 - 12:00 <J1-06> Ryo KAZAOKA
Seasonal Features of Air Parcel' s Transport Arriving at the Japan Area

12:00 - 14:00 -----*lunch*-----

14:00 - 14:40 <J1-07> Yoshiyuki FUJII
Past Volcanic Signals Recorded in Polar Ice Cores

14:40 - 15:10 <J1-08> Keiji TAKEMURA
Lake Deposits: Record of Volcanic Activity and Climatic Variation.

15:10 - 15:40 <J1-09> Chang-Hwa CHEN
Tephra Studies: Implications on Climate Changes and Human Migration

15:40 - 16:10 -----*coffee break*-----

16:10 - 16:50 <J1-10> Takehiko MIKAMI
Climatic Variations and Volcanic Activities in Historical Times

16:50 - 17:30 <J1-11>Toru NOZAWA
Simulations of Climate Change in the 20th Century with a Coupled Ocean-Atmosphere GCM: Impact of Volcanic Forcing on the Surface Air Temperature

November 3 (Wednesday)

8:30 - 9:10 <J1-12> Kunihiko KODERA
Solar and Volcanic Forcing on Climate through Stratospheric Dynamical Processes

9:10 - 9:40 <J1-13> Masakazu TAGUCHI
El Niño, Stratospheric Sudden Warmings, and Enhanced Climate Anomalies

9:40 - 10:00 <J1-14> Yoko NAITO
A Statistical Analysis on the Stratosphere-Troposphere Coupled Variability by using Large Samples Obtained from a Mechanistic Circulation Model

10:00 - 10:30 -----*coffee break*-----

10:30 - 11:00 <J1-15> Masao SHIOTANI
Balloon-born Ozone and Water Vapor Observations around the Tropical Tropopause Layer
11:00 - 11:20 <J1-16> Nawo EGUCHI
Water Vapor Variation in the Tropical Tropopause Layer
11:20 - 11:40 <J1-17> Satoru YOKOI
Effects of Mean Flow on Movement of Intra-seasonal Disturbances in the Asian Monsoon Region during the Boreal Summer
11:40 - 12:00 <J1-18> Mamoru YAMAMOTO
Observation of Equatorial Atmosphere with EAR (Equatorial Atmosphere Radar) in Sumatra, Indonesia
12:00 - 13:30 -----*lunch*-----

ORAL SESSION 2: Fluids and Earthquakes in Convergent Regions

Chair: SHIMAMOTO; Room: Meeting Room 32; Language: English

November 2 (Tuesday)

8:30 – 9:10 *Invited Lecture 4:*
<J2-01> Marco SCAMBELLURI (Università di Genova, Italy)
The Fate of Fluids in Subducting Slabs: Insights from Serpentinite Systems
9:10 – 9:40 <J2-02> Shinji OHSAWA
Geochemical Characteristics of Carbonated Brines along Median Tectonic Line, South-West Japan: Implication for Upward Migration of Dehydrated Fluids from Subducting Philippine Sea Plate
9:40 – 10:00 <J2-03> Tomoyuki SHIBATA
Contribution of Crustal Materials to Island Arc Magmas: Implication for Detailed Investigation of Material Recycling in Subduction Zone Inferred from Trace and Isotopic Compositions of Arc Magmas
10:00 - 10:30 -----*coffee break*-----
10:30 – 11:00 <J2-04> Hikaru IWAMORI
Magmatism and Metamorphism in Subduction Zones: Implications for Global Circulation of H_2O
11:00 – 11:20 <J2-05> Yon LAI
The Characteristics of Noble Gases in Mantle-derived Xenoliths, its Implication to Crust-mantle Structure, NE China
11:20 – 11:40 <J2-06> Hiroyuki KAGI
Paleo Moho Depth of Oki-Dogo Island Determined from the Residual Pressure of CO_2 Fluid Inclusions: Looking into the Deep Earth through Mantle-derived Materials
11:40 – 12:00 <J2-07> Tatsuhiko KAWAMOTO
Direct Observation of Magmas and Water under High-Pressure and High-Temperature Conditions
12:00 - 14:00 -----*lunch*-----
14:00 – 14:30 <J2-08> Tetsuzo SENO
Regional Variation of Serpentinization of the Wedge Mantle: Implications for Collision - Subduction Zone Tectonics

14:30 – 15:00 <J2-09> Sri WIDIYANTORO
Seismicity and Structure of the Sumatora-Java-Bali Subduction Zone
15:00 – 15:30 <J2-10> Shiro OHMI
Non Volcanic Low-Frequency Events in Subduction Zones in Japan -Tremors in the Forearc and Earthquakes in the Backarc Region-
15:30 - 16:00 -----*coffee break*-----
16:00 – 16:30 <J2-11> Ichiro KAWASAKI
Slow Slip Events along the Nankai and the Sagami Troughs on the Northwestern Margin of the Philippine Sea Plate
16:30 – 17:00 <J2-12> Takane HORI
A Large-Scale Simulation of Earthquake Cycles along the Nankai Trough, Southwest Japan, with the Earth Simulator
17:00 – 17:30 <J2-13> Bunichiro SHIBAZAKI
Short-interval Silent Slip Events and Nucleation Process on a Fluid-infiltrated Thrust Fault Model

November 3 (Wednesday)

8:30 – 9:00 <J2-14> Klaus REGENAUER-LIEB
Initiation and Evolution of Subduction Zones: the Role of Water
9:00 – 9:20 <J2-15> Chen JUNYONG
On Crustal Movement in Mt. Everest and Its Surrounding Area
9:20 – 9:40 <J2-16> M. Farhad HOWLADA
Finite Element Modeling of Normal Faults on the Late Miocene Profile of Annapurna Region, Nepal Himalaya
9:40 – 10:00 <J2-17> Tsuneomi KAGIYAMA
Structure of Volcano and its Implications to Volcanic Activity
10:00 - 10:30 -----*coffee break*-----
10:30 – 11:00 <J2-18> Alison ORD
Emergent Fracture Systems: Numerical Modelling with a Particle Flow Code
11:00 – 11:20 <J2-19> Kohtaro UJIIE
Deformation and Fluid Flow Processes during Initiation and Evolution of Plate Boundary Décollement Zones in Accretionary Prisms
11:20 – 11:40 <J2-20> Teruaki ISHII
Geological and Petrological Studies on the Recovered Serpetinite from Forearc Seamounts along Izu-Ogasawara-Mariana Trench
11:40 – 12:00 <J2-21> Tetsuro HIRONO
Drilling-into-seismogenic Zone in Nankai Trough with Chikyu
12:00 - 13:30 -----*lunch*-----

GENERAL SESSION 2

Chair: Keiji TAKEMURA; Room: Conference Room

November 3 (Wednesday)

13:30 - 14:30 *Invited Lecture 5:*
<G3> Bruce HOBBS (CSIRO Exploration and Mining, Australia)
Thermodynamics of Shear Zone Development in Coupled Thermal Fluid-Mechanical Chemical Systems

14:30 - 15:30 *Invited Lecture 6:*
<G4> Chan-Hwa CHEN (Academia Sinica, Taiwan)
Temporal and Spatial Evolution of Arc Magmas Along the Philippine Sea Plate Subduction Zone

15:30 - 16:00 -----*coffee break*-----

SUMMARY

Chairs: Keiji TAKEMURA, Takehiko SATOMURA,
Toshihiko SHIMAMOTO, and James MORI;
Room: Conference Room

November 3 (Wednesday)

16:00 - 17:00 Discussion on Active geosphere in convergent region
Summary of parallel session and general session

PROGRAM (POSTER)

<P-01> Kuei-Chih FANG
Tephra Study in Lake Biwa

<P-02> Yuen-Ping KU
Marine Tephra Deposits in the Monsoon Area: An Example as the Luzon Volcanic Arcs, Philippines

<P-03> Chia-Mei LUI
Hydrochemistry of Springs from the Sedimentary Formation of Western Foothills, Taiwan

<P-04> Larisa MOSKOVCHENKO
Electromagnetic Precursors of Tsunami Waves

<P-05> Horst ZWINGMANN
Brittle Fault Dating

<P-06> Somchai NAKAPADUNGRAT
Still Searching for Diamond Carrier Rocks in Takua Pa, Phangnga and Phuket Area, Southern Thailand

<P-07> Thanawat JAROPONGSAKUL
Flood-risk Analysis in the Chao Phraya Delta, Central Thailand

<P-08> Alison ORD
Brittle Processes

<P-09> Yosuke AOKI
Crustal Deformation of the Kyushu Island, Japan

<P-10> Tetsuo KOBAYASHI
Change in Mode of Eruption and Chemistry of Magma during the 2.2 ka Eruption of Yufu Volcano, Japan

<P-11> Fujio MASUDA
Duration of a 7300-year-old Volcanic Ashfall Determined from the Sedimentary Structures of Tidal Deposits

<P-12> Junji YAMAMOTO
Occurrence of Subduction-Related Fluid in Mantle Wedge-Derived Rocks

<P-13> Akira MIYAKE
Seismic Velocity in Enstatite by Molecular Dynamics Simulation

<P-14> Takahiro TAGAMI
Zircon Fission-Track Thermochronology of the Nojima Fault Zone, Japan

<P-15> Hisahiro TAKASHIMA
Ozone Variation in the Tropical Tropopause Layer as Seen from Ozonesonde Data

<P-16> Peiliang XU
Determination of Regional Stress State from Fault-slip Data

<P-17> Katsushi SATO
Detecting Change of Stress State in the Geological Time Scale: Recent Improvement of Stress Tensor Inversion

<P-18> Masako YOSHIKAWA
Sr and Nd Isotopic Composition of Dunite Channels in the Horoman Peridotite Complex, Hokkaido, Japan: Inference of the Origin of Passed Melt"

<P-19> Shin'ya NAKANO
Long-term Variations in Geomagnetic Activity at Mid-latitudes

<P-20> Koshi NISHIMURA
The Role of Water in the Evolution of Silicic Magma Chambers: A Numerical Approach to Crystal Settling Followed by Partial Resorption and Renewed Growth

<P-21> Yu SAITOH
Experimental Study of Quasi-steady Turbidity Current: Condition for Deposition and Erosion

<P-22> Heather McCREADIE
Induction in the Mantle Caused by the Storm Time Equatorial Ring Current.

<P-23> Miquel GARCIA
Three Dimensional Estimation of Ionospheric Electron Density over Japan with GEONET Network, Combined with LEO GPS and Ionosonde Data

<P-24> Yuto KATOH
Acceleration of High Energy Electrons through Whistler Mode Instability in the Outer Radiation Belt

<P-25> Kazuhiro AMITA
Finding of Arima-type Deep Thermal Water from Hot Spring Wells in Oita Plain, Eastern Kyushu, Japan

<P-26> Kazuhiro AMITA
Resistivity Structure Beneath the Kyushu Island Inferred from the Network - MT Data

<P-27> Takao HIRAJIMA
Lawsonite-blueschist as a Potential Water Reservoir in the Subducted Slab: A Case Study of Odao-blueschist in the Kurosegawa Belt, Western Kyushu, Japan

<P-28> Naoto INOUE
Gravity Anomaly of Southwest Japan Based on Several Separation Methods

<P-29> Daisuke NAKAMURA
Pseudosection on Stability of Hydrous Phases and Examples in Natural Eclogite

<P-30> Tatsuhiko KAWAMOTO
Changes in the Structure of Water Deduced from the Pressure Dependence of the Raman OH Frequency

<P-31> Jun KAWANO
Molecular Dynamics Simulation on the Elastic Properties of Hydrous Minerals

<P-32> Youngdo PARK
Discrete Element Modeling of some Geologic Structures