



<http://www.isme-detec.org/ISME/ISME.htm>

## The Schedule of September 7-8, 2010

Geological Survey of Finland, Espoo, Finland <http://en.gtk.fi/>



### **September 6**

15:00 - 17:00 Registration at GTK Lobby in Espoo, Finland (280Euro for each)

17:00 - 20:00 Ice Breaker at GTK Restaurant near the Lobby

# Each presentation by oral has 15 minutes talk with 5 minutes discussion.

Representing speakers have 15 minutes without discussion.

Keynote speakers have 25minutes talk wit 5 minutes discussion.

### **September 7**

**(Convener: P. Nurmi and R. Kouda)**

9:00 - 9:10 Opening address (MMIJ)

9:10 - 9:20 Welcome address (GTK)

9:20 - 9:30 Organizational issues

#### **Assessment methods of undiscovered mineral resources**

**(Convener: M. Scott)**

9:30 - 10:00 From mapping of mineral prospectivity to quantitative estimation of undiscovered mineral resources (Emmanuel John M. Carranza) Keynote

10:00 - 10:30 Probabilistic estimates of total tonnage of mineral deposits in permissive tracts using deposit densities (Donald A. Singer and Ryoichi Kouda) Keynote

**(Convener: M. Rinne)**

10:30 - 10:50 The role of geological survey organizations in the accounting of geological resources - insights into Finnish approach (Vuori, S., Aatos, S., Tuusjarvi, M., and Holmijoki, O.)

10:50 - 11:10 The undiscovered PGE resources of Finland (Rasilainen, K., Eilu, P., Halkoaho, T., Iljina, M., Karinen, T.)

11:10 - 11:40 Widening the Search to Enhance Queensland's Resource Inventory (Margaretha Scott) keynote

#### **Integrated modeling of exploration**

**(Convener: T. Ueki)**

11:40 - 11:55 GIS-based Modeling of Kaolin Resources Prospectivity (Alaa Masoud and Katsuaki Koike)

11:55 - 12:00 Short and sharp introduction to posters (J. Lerssi)

12:00 - 12:10 (Gathering Photograph)

12:10 - 13:30 Lunch break with posters

13:00 - 13:30 Posters with authors' explanations

- Assessment of hydrothermal processes associated with Proterozoic mineral systems in Finland using self-organizing maps (J. Lerssi, P. Sorjonen-Ward, S. J. Fraser, and A. Ruotsalainen)
- Development of geo-environment risk assessment system, An exposure model for contaminated site (Yasuhide Sakamoto, Yoshishige Kawabe, Satoshi Murao, Takeshi Komai)
- Performance evaluation of a developed low-cost and simplified borehole camera (Tomoshi Yamashita, Tamotu Ota, and Sunao Kunimatsu)

### **Integrated modeling of exploration (continued)**

#### **(Convener: D. Singer)**

13:30 - 14:00 Cloud computing and free and open source environment to accelerate global exploration (Ryoichi Kouda) Keynote

14:00 - 14:20 Spatial data analysis as a tool for mineral prospectivity mapping applied to gold exploration in Central Lapland Greenstone Belt, Fennoscandian Shield (Vesa Nykänen)

14:20 - 14:40 Ore-Grade Modeling of a Laterite Nickel Deposit by Integrating Geological Information (Asran Ilyas and Katsuaki Koike)

14:40 - 15:00 (Scientific promotion: Result by SELENE mission of lunar exploration)

15:00 - 15:30 Coffee and tea break

#### **(Convener: V. Nykänen)**

15:30 - 15:45 A GIS-based weights-of-evidence model for mineral potential mapping of porphyry copper in Dehsalm area, east of Iran (Mansour Ziaii, Abolghasem Kamkar-Rouhani, and Saeed Yousefi)

15:45 - 16:00 Design of an inference network to combine input Boolean evidential maps for predictive modeling of preliminary exploration of gold deposits in frontier areas (M. Yousefi and A. Kamkar-Rouhani)

16:00 - 16:15 Using spatial analysis and weight of evidence method for recognition and separation of lens and fault zone mineralization of fluorite in south of Mazandaran province, Iran (M. Yousefi and A. Kamkar-Rouhani)

#### **(Convener: E.J.M. Carranza)**

16:15 - 16:35 A GIS-based weights-of-evidence model for site selection of decorative stone plant in Bajestan mining area, Iran (Amir Masoud Jafari, Amir Mohsen Nikzad Mansour Ziaee and Abolghasem Kamkar-Rouhani)

16:35 - 16:55 An integrated geological, geochemical and geophysical investigation for delineation of listwaenite gold deposits in east of Iran (Abolghasem Kamkar-Rouhani, Mansour Ziaii, and Hossein Shahi)

16:55 - 17:15 New mobile on-line mineral analysis technology speeds up exploration projects (Timo Viitanen)

#### **(Convener: R. Kouda)**

17:15 - 17:40 Discussion I

17:40 - 17:50 Organizational issues

18:00 - Bus leaves at GTK for Helsinki Kauppatori.

15 min boat transfer to Suomenlinna island.

Guided 30 min walking at the historical maritime fortress.

20:00 - 22:30 Hosted Conference Dinner at the restaurant Panimo, Suomenlinna.

## **September 8**

### **Exploration methods in fields**

#### **(Convener: A. Nguno)**

9:00 - 9:30 JOGMEC's mineral exploration and technology development activities (Hiroyuki Katayama)

Key note

9:30 - 9:50 Seismic reflection surveys in mineral exploration (Ilmo T. Kukkonen)

#### **(Convener: I. Kukkonen)**

9:50 - 10:10 Significance of phyllosilicate mineralogy as hydrothermal indicators in exploration of ore

deposits: Availability of chemical and structural properties of chlorite-smectite series minerals (Tetsuro Yoneda, Hiroshi Mokko and Tsutomu Sato)

10:10 - 10:30 A comparison of mineralogy and leaching behavior of arsenic between two types of epithermal Au ore deposits in the southwestern Hokkaido, Japan (Tomoya Bando, Tetsuro Yoneda, Megumi Hatayama, Tsutomu Sato and Toshihiko Ito)

10:30 - 10:50 Coffee and tea break

**(Convener: T. Tosha)**

10:50 - 11:10 The fracturing propagation rate monitoring due to block caving mining system using the resistivity method (B. Sulistijo and R. Luhans)

11:10 - 11:30 Detection of fractures containing metallic mineralization by inversion of helicopter electromagnetic data using a new inverse modeling method in Alut area, Kurdistan Province, Iran (Y. Alireza Arab-Amiri, Ali Moradzadeh, Abolghasem Kamkar-Rouhani, Nader Fathianpour, Davood Rajabi, and Bernard Siemon)

11:30 - 12:30 Lunch break

### **Environmental issues**

**(Convener: H. Asaue)**

12:30 - 12:50 The New Industrial System on CO<sub>2</sub> Recovery Process with Biomass Factory (Morihiro Kurushima)

12:50 - 13:10 A monitoring method using Self Potential variation in the CO<sub>2</sub> geological storage (Toshiyuki Tosha and Tsuneo Ishido)

**(Convener: R. Kouda)**

13:10 - 13:25 Mercury Awareness Among Artisanal Gold Miners In Indonesia (Chusharini Chamid)

13:25 - 13:45 A progress report of in-air PIXE development to support risk management in local communities (Satoshi Muraio, Koichiro Sera, Yoshishige Kawabe and Tsuyoshi Nakamura)

13:45 - 14:00 Coffee and tea break

### **Geological disposal of high level nuclear waste**

**(Convener: T. Yoneda)**

14:00 - 14:20 Geological Model of the Olkiluoto Site (Ismo Aaltonen)

14:20 - 14:40 Conceptual understanding as a basis for data acquisition, analysis and 3-D deterministic geological modelling, Forsmark, Sweden (Michael B. Stephens and Assen Simeonov)

**(Convener: R. Lahtinen)**

14:40 - 15:00 Characterization of Large-Scale Groundwater Environment in a Granite Site by Spatial Modeling of Fracture and Hydrogeologic Distributions (Katsuaki Koike, Chunxue Liu, Alaa Masoud, Arata Kurihara, Kenji Amano)

15:00 - 15:20 Modelling Coupled F-T-H processes of Rock Mass (Mikael Rinne, Baotang Shen, and Ove Stephansson)

**(Convener: K. Koike)**

15:20 - 15:40 Three-dimensional Modeling of Deep Geological Structure and Groundwater System Using MT Resistivity (Hisafumi Asaue, Taiki Kubo, Masahito Sasahara, Toru Yoshinaga and Katsuaki Koike)

15:40 - 16:00 Disposal of Spent Nuclear Fuel in Finland (Ismo Aaltonen)

16:00 - 16:15 Deep Groundwater and Geological Structure Research on a Coastal Area, in Japan (Atsunao Marui, Toshihiro Uchida, and Ryoichi Kouda)

**(Convener: K. Koike)**

16:15 - 16:30 Discussion II

16:30 - 16:40 Closing remarks and invitation of ISME-XII, 2012, in Brisbane, Australia (M. Scott)

16:50 - (Leave for Olkiluoto excursion)

## **September 9**

### **Geological excursion of Olkiluoto nuclear fuel disposal site (Fee is 280Euro for each)**

(Note: Registration fee does not include the excursion fee)