

MINEARC WEBINAR Mineral resource and sustainable exploration

23-24 April 2024 (Time zone, CET, GMT+2)

23-April

- 9:00-9:10 **Opening of Webinar**
Albert DeGarmo (US Department of State, Bureau of Energy Resources)
Nils Jansson (Luleå University of Technology)
Ana Jesus (University of Lisbon)
- 9:10-10:25 Theme 1 Mineral system modelling for exploration**
 Moderator: *Shenghong Yang* (University of Oulu)
- 9:10-9:25 *Joel Anderson* (Luleå University of Technology), A mineral systems approach on critical raw material deposits in Europe
- 9:25-9:40 *Malcolm Aranha* (University of Oulu), Mineral systems driven prospectivity modelling of orthomagmatic ore deposits
- 9:40-9:55 *Miguel Gaspar* (University of Lisbon), Multi-scale and interdisciplinary approaches to the granite-related ore-forming systems in the Segura-Argemela-Panasqueira-Góis belt (Portugal), insights for innovative exploration surveys
- 9:55-10:10 *Jukka Pekka Ranta* (University of Oulu), Gold deposits in northern Finland: Characteristics and current understanding
- 10:10-10:25 Discussion of theme 1
- 10:25-11:00 Coffee break
- 11:00-12:15 Theme 2 Geophysical exploration methods**
 Moderator: *Gianluca Fiandaca* (University of Milan)
- 11:00-11:15 *Maxim Smirnov* (Luleå University of Technology), DRex project in Fennoscandia
- 11:15-11:30 *Gianluca Fiandaca* (University of Milan), Closing the gap between Airborne EM and galvanic induced polarization for sustainable mineral exploration
- 11:30-11:45 *Sami Niemi* (Geological Survey of Finland), DroneSOM project and its achievements
- 11:45-12:00 *Marko Holma* (Muon Solutions), Quantum Leaps in Mineral Exploration: Adapting High-Energy Particle Research for Innovative Geophysical Techniques
- 12:00-12:15 Discussion of theme 2
- 12:15-13:15 Lunch break
- 13:15-14:30 Theme 3 Geochemical exploration methods and Theme 4 progress in mineral exploration industry**
 Moderator: *Nils Jansson* (Luleå University of Technology)
- 13:15-13:30 *Ferenc Molnar* (Eötvös Loránd University), Enhanced application of heavy mineral chemistry in mineral exploration targeting: the MinExTarget project
- 13:30-13:45 *Julian Menuge* (University College Dublin), Geochemical exploration for pegmatites: results from the GREENPEG project
- 13:45-14:00 *Mathias Forss* (Geopool), Exploration progress by different mineral explorers, opportunities and challenges
- 14:00-14:15 *Laura Lauri* (LKAB), Exploration of the Per Geijer IOA deposit in a nutshell
- 14:15-14:30 Discussion of theme 3 and 4
- 14:30-15:00 Coffee break

15:00-16:20 Theme 4 Progress in exploration industry*Moderator: Tero Niiranen (Geological Survey of Finland)*

- 15:00-15:15 *Joel Jokelainen (Terrafame), Exploring the partly underwater Kolmisoppi Ni-Zn-Cu-Co deposit in the Kainuu Schist Belt, Finland*
- 15:15-15:30 *David Drejing-carroll (Boliden), Discovery history and geology of the Nautanen North Cu-Au-Ag-(Mo) deposit, Norrbotten, Sweden*
- 15:30-15:45 *Tom Kearney (Talga AB), Talga AB: The Vittangi Graphite Project*
- 15:45-16:00 *Tuomo Nissinen (3Awater), Multimetal Water Analysis System (MWAS) a Fast On-site Analysis Tool of Dissolved Metals in Water*
- 16:00-16:15 Discussion of theme 4
- 16:15-16:20 *Wrap up: Tero Niiranen (Geological Survey of Finland)*

24-April**9:00-10:15 Theme 5 Mineral resources and exploration in Africa***Moderator: Tegist Chernet (Geological Survey of Finland)*

- 9:00-9:15 *Thorkild M. Rasmussen (Luleå University of Technology), The Mineral Resources Management Education Programme in Mozambique - A cooperation between Luleå Tech. University and Eduardo Mondlane University, Maputo*
- 9:15-9:30 *Elisante Mshiu (University of Dar es Salaam), Tanzania's Expansion Opportunities from Gold Mining to Strategic Minerals and Battery Metals*
- 9:30-9:45 *Ari Saartenoja (Radai Ltd), Mineral resource potential in Africa*
- 9:45-10:00 *Imasiku Nyambe (University of Zambia), Geological investigations of Critical Raw materials: a case study of manganese ore deposits in Zambia*
- 10:00-10:15 Discussion of theme 5
- 10:15-10:45 Coffee break

10:45-12:00 Theme 6 Education of exploration and social awareness*Moderator: Ana Jesus (University of Lisbon)*

- 10:45-11:00 *Ferenc Madai (University of Miskolc), TIMREX: EIT-labelled T-shaped MSc program for Innovative Mineral Exploration*
- 11:00-11:15 *Pertti Sarala (University of Oulu), Development of professional competence for geochemical and indicator mineral research in mineral exploration*
- 11:15-11:30 *Georg Meissner (Institute of Mining and Special Civil Engineering), The AGEMERA Online Lecture - Raising University Students' Awareness Regarding the Importance of Critical Raw Materials in Everyday Life*
- 11:30-11:45 *Kyle Bahr (University of Eastern Finland), Machine learning topic detection of social media attitudes about mineral development in Europe*
- 11:45-12:00 Discussion of theme 6
- 12:00-12:05 *Wrap up: Shenghong Yang (University of Oulu)*