

MAGDALENA MARKOVIC JUHLIN

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UPPSALA
UNIVERSITET

Hardrock Seismics • Mineral Exploration • Machine Learning • Lithospheric-Scale Science • Prototypes

EDUCATION

PhD in Geophysics with specialization in Solid Earth Physics, Department of Earth Sciences, Uppsala University; **Thesis title:** Seismic Exploration Solutions for Deep-Targeting Metallic Mineral Deposits: From high-fold 2D to sparse 3D, and deep-learning workflows

Completed on November, 11th 2022* (9 months ahead of the contract ending)

**Parental leave: full-time November 2019-May 2020, and half-time October 2020-January 2021*

MSc in Engineering Geology with specialization in Applied Geophysics, Faculty of Mining and Geology, University of Belgrade; Completed in July 2017

BSc in Engineering Geology with specialization in Applied Geophysics, Faculty of Mining and Geology, University of Belgrade; Completed in September 2016

PROFESSIONAL EMPLOYMENT

March 2025-present: **Assistant Professor (tenure-track)**, Uppsala University, Sweden

October 2023-March 2025: **Postdoctoral researcher**, Uppsala University, Sweden

January 2023-October 2023: **Researcher**, Uppsala University, Sweden

November 2022-January 2023: **Post-PhD researcher (short-term)**, Uppsala University, Sweden

SUPERVISION/MENTORSHIP/EXAMINATION

Principal Doctoral Supervisor

- **Félix Van Santvliet**, defense planned for 2030, topic of research: Targeting and Characterization of Mineral Deposits Through Physical Property Analysis and Reflection Seismic Methods

Doctoral Co-supervisor

- **Florian Velter**, defense planned for 2030, topic of research: Deep targeting using surface and downhole seismic arrays in Viscaria, northern Sweden
- **Arianna Koufopoulou**, defense planned for 2028, topic of research: Lithospheric footprints of critical raw materials

Master's Thesis Supervisor

- **Philip Landeman**, 2025-ongoing, "High-resolution magnetic and gravity delineation of mafic-endowed Ni-Cu-PEG deposits in Bergslagen"
- **Sara Rognås**, June 2025, "Unravelling Geological Structures Controlling the Groundwater Table in the Blötberget Mine Area"

Master's Thesis Co-supervisor

- **Fanuel Redae Tesfamikael**, August 2024, "Improved deep-targeting iron-oxide deposits using a broadband seismic landstreamer system at the Ludvika Mines, central Sweden"
- **Sayed Mehera Ahmed**, August 2024, "Reflection seismic imaging and interpretation of 2D lines at Rødby (Denmark) potential geological CO₂ storage site"
- **Haroon Khan**, August 2024, "Subsurface site characterization using seismic imaging technique for CO₂ storage in Denmark"
- **Mussie Habtemariam Zeru**, January 2024, "2D Reflection Seismic Imaging of Rødby Structures, Denmark: Geological Conditions for CO₂ Sequestration"

- **Emmanuel Alofe**, August 2021, “Reflection Seismic Survey for Characterising Historical Tailings and Deep Targeting at the Blötberget Mine, Central Sweden”

Master’s Thesis Reviewer

- **Eman Elfakharany**, August 2026, “Upper Crustal Structures of the Blötberget Mining Area, Central Sweden: 2D Reflection Reprocessing of a Sparse 3D Dataset”

Bachelor’s Thesis Reviewer

- **Dan Bergenholtz**, June 2025, “Optimizing Surface-Wave Methods for Quick-Clay Characterization”

Master’s Thesis Examiner

- **Stefanos Sykiotis**, March 2025, “Predicting Physical Properties Using Neural Networks: A Case Study from Ludvika Mines-Central Sweden”

Master’s Thesis Examination-External

- **Omphulusa Mulanduli**, 2024, “Physical property studies, tunnel numerical simulations and in-mine seismic experiments to image the gold orebody at South Deep Gold Mine”, University of the Witwatersrand, South Africa

INTELLECTUAL PROPERTY (IP) LIST

- Shared IP on solution developed for **automatic boulder detection** utilizing diffraction energy
- Shared IP on product development and design for second generation of **SeisMove®** (patent filed) - a state-of-the-art 3C MEMS-based landstreamer
- Conceptual designer and co-owner of the trademark of **mineority®** - an ESG framework and platform under development within the Smart Exploration Research Center

RESEARCH GRANTS

- **Swedish Energy Agency (Impact Innovation-Swedish Metals & Minerals)**: Innovative Deep Targeting in Viscaria Using a Novel Simultaneous Sparse Surface 3D Seismic Array with Integrated Downhole Hydrophone and Distributed Acoustic Sensing System (NAVIS), **2025-2027, 500 000 SEK (my part), co-applicant and WP2 leader**
- **External project with Nordic Iron**: Sparse 3D Survey for Delineation of the Potential Extension of the Blötberget Iron-oxide Mineralization Towards South-West, **2025-2026, 586 000 SEK, main applicant**
- **Vinnova (Swedish Mining Innovation)**: Nordic Exploration PhD Summer School, **June-October 2025, 225 000 SEK, main applicant**
- **Vinnova (Impact Innovation-Swedish Metals & Minerals)**: Geophysical exploration using convertible robotic solutions (GeoRunner), **2024-2025, 1 190 000 SEK, main applicant**
- **Public Power Corporation of Greece**: 2D reflection seismic surveys to understand subsurface structures of the Lesvos potential geothermal field, **2024-2025, 150 000 SEK (my part), co-applicant**
- **Swedish Foundation for Strategic Research**: Smart Exploration Research Center, **2023-2029, 300 000 SEK (my part), Innovation and KPI coordinator & tenure-track**
- **Geological Survey of Denmark and Greenland**: CCS Rødbj-Denmark project, **2023-2024, 2 million SEK (my part), co-applicant & fieldwork leader**
- **External project with Fugro**: High-resolution boulder detection utilizing diffraction energy, **February-September 2023, 210 000 SEK, main applicant**

Grants for writing proposals

- **Swedish Foundation for Strategic Research**: A core team member of proposal preparation and writing for EU project, **2026, 80000 SEK (my part), co-applicant**
- **Prefekts strategiska funds, Uppsala University**: A core team member of proposal preparation and writing for Swedish Research Council, Doctoral Programme call, **2025, 100 000 SEK (my part), co-applicant**
- **Prefekts strategiska funds, Uppsala University**: A core team member of proposal preparation and writing for Smart Exploration Research Center, **2023, 80 000 SEK (my part), co-applicant**

AWARDS, RECOGNITIONS AND SCHOLARSHIPS

2024

- Uppsala University Innovation's Attractive Innovation Project Award for SeisMove® landstreamer technology (shared award)
- Certificate for Recognition and Appreciation for Service to the Balkan Geophysical Society
- Bjurzons premium award for excellent PhD thesis of 2023, Faculty of Science and Technology, Uppsala University (33000 SEK)

2023

- Certificate of Recognition and Appreciation for Service in Geo-, Environmental and Petroleum Sciences given by AGES

2022

- Uppsala University Liljewalch travel and research scholarship award (2022-2023) for a research visit to the Geological Survey of Canada in Ottawa and Laval University in Quebec City for establishing project ideas on multicomponent hardrock seismics (33700 SEK)
- Award for one of the four best abstracts and presentations at the EAGE-NSG conference, Belgrade, Serbia, title of the extended abstract: Coupled Hough-Transform and Deep Learning for Improved Diffraction Delineation
- Certificate of Recognition and Appreciation for Contribution to AGES

2021

- Award for one of the four best abstracts and presentations at the EAGE-NSG conference, Bordeaux, France, title of the extended abstract: Diffraction Recognition Using Deep Learning
- SEG scholarship award for 2021-2022 (2500 USD)

2020

- Award for one of the four best abstracts and presentations at the EAGE-NSG conference, online, title of the extended abstract: Sparse 3D Reflection Seismic Survey at Ludvika Mines of South-Central Sweden

2019

- The best SEG student chapter award (chapter vice-president, 5000 USD)

2018

- The most improved SEG student chapter award (chapter president, 1000 USD)

2017

- MSc Student of Generation Award, Faculty of Mining and Geology, University of Belgrade, Serbia
- SEG/AGES GwB project scholarship for a research visit to Department of Exploration Geophysics, Curtin University, Perth, WA, research topic on geohazards and reflection seismic method (2500 AUD)

2016

- EAGE's best local chapter award (AGES student chapter president, 1000 EUR)
- EAGE/AGES grant for student field camp at Madjere multi-cultural layered archaeological site, Serbia (2000 EUR)

2011 - 2017

- Scholarship from Ministry of Education, Science and Technological Development for the gifted high school and university students, Serbia (approx. 400 000 RSD)

ADMINISTRATIVE MERITS

- Smart Exploration Research Center, 2023- present, responsible for **Innovation and KPI coordination and member of the IP & Commercialization Panel**
- Annual meeting of reflection seismic group at Uppsala University, 2023-present, responsible for part of the program organization and activities for PhD students, for example, creating interactive **workshops for tracking the education/supervision standards, and hard/soft skills improvement**

- PhD council member at Department of Earth Sciences, Uppsala University, 2017-2018, **representative of the PhD students in the departmental board**, and taking part in organization of activities for PhD students, such as PhD day for all students from the department
- Students' parliament member at Faculty of Mining and Geology, University of Belgrade, 2015-2016, responsible for the **student questions and activities regarding the quality of science and education**
- Student vice-dean at Faculty of Mining and Geology, University of Belgrade, 2014-2015, representative of students at the Dean's Collegium, the Faculty Council and the Education and Science Council; **working on improvement of student standards, resolving potential issues and conflicts**, organizing and coordinating side activities for students

DECISION-MAKING AND LEADERSHIP

Field leader roles and responsibilities

- Sparse 3D reflection seismic survey project leader at Ludvika mine site, 2025, planning and coordinating a week-long field campaign
- CCS Rødby-Denmark project leader, 2023, planning and coordinating a 7 weeks-long field campaign
- Field course leader/instructor of seismic and magnetic method, 2018-present, teaching and survey coordination
- AGES/EAGE field camp leader, 2016, survey planning and coordination

Student Chapter officer leadership roles

- SEG and EAGE Uppsala University Student Chapter officer (president and vice-president of both chapters), 2018-2022, responsible for leading the chapter meetings and manage affairs of the chapter, promoting the chapter membership, coordinating the finance and strategy plan of the chapter
- AGES Student Chapter president, 2015-2017, responsible for leading the chapter meetings and coordinate organized activities for students

EXPERIENCE OUTSIDE UNIVERSITY ENVIRONMENT

Private Consultancy

- A spin off of various developments during my PhD and postdoc employment - **VP Tech at Nordic Geophysics**

Organization of Conferences and Events

- EAGE Near Surface Geoscience, 7th Conference on Geophysics for Mineral Exploration and Mining, 2026, Thessaloniki, Greece; member of the scientific committee
- Convener of the "Geophysical signatures of mineral systems and across scales" session at the the 37th Nordic Geological Winter Meeting, 2026
- Balkan Geophysical Society Congress, 2024; member of the organizing and scientific committee
- Inauguration of the Smart Exploration Research Center, 2024, Uppsala, Sweden; part of the organizing team
- EAGE Near Surface Geoscience Conference and Technical Exhibition, 2022, Belgrade, Serbia; co-chair of the organizing committee and moderator of the opening panel discussion on topic about mining in the challenging world
- Energy Transition: A Change Driven by Young Professionals Conference with special attendance of the EAGE board members, 2022, Uppsala Sweden; member of the organizing committee, and moderator of the panel discussion focusing on various aspects of energy transition, from a role of the industry to academia and young professionals
- Careers in Mineral Exploration: Let's Talk to Experts!, 2021, online; member of the organizing committee within the Smart Exploration project Young Professional community
- EAGE Near Surface Geoscience Conference, 2020, online, co-chair of the organizing committee
- SEG/EAGE International Geoscience Student Congress, 2019, Uppsala, Sweden; member of the organizing committee

- AGES Congress on Biomedicine and Geoscience: Influence of Environment on Human Health, 2016-present, Serbia; member of the organizing and scientific committee
- AGES/SEG/EAGE Congress and Technical Exhibition on Geosciences Applied to Solve Humanitarian Problems all over the World, 2017, Belgrade, Serbia; member of the organizing committee

Coordination Assignments and Technical Community Service

- Associate Editor for Geophysical Prospecting, 2024-present, topics covered: hardrock seismic processing, mineral exploration, diffraction methods and machine learning.
- EAGE Mineral Exploration Geophysics community (recently changed to Critical Minerals community), 2021-2023, committee member responsible for activities mainly regarding the Young Professionals.
- SEG/AGES GwB-funded landslide project in Serbia and Bosnia, 2015-2017, coordinator of the student activities such as summer and spring schools for university and high school students, short courses, conferences, and fieldworks

EDUCATIONAL ENGAGEMENTS

Uppsala University - Sweden (*taught in English and Swedish*)

- 2026-present: **Geoteknik** (5 credits, second cycle studies); exercise evaluations; 40-50 students
- 2026-present: **Introduction to Seismology** (5 credits, second cycle studies); course responsible; four lecture blocks; 50-60 hrs; 2-5 students
- 2025-present: **Seismic Imaging** (5 credits, second cycle studies); four lecture blocks; 40-50 hrs; 2-5 students
- 2018-present: **Exploration and Environmental Geophysics** (10+5 credits, second cycle studies); field instructor of **reflection seismic and magnetic method**, and involved in preparation of tasks for the field course report; 60-70 hrs; 15-20 students
- 2021-present: **Statistics Methods in Earth Sciences** (5 credits, first cycle studies); computer lab exercises and two lecture blocks; 20-30 hrs; 7-10 students
- 2023-present: **Decarbonisation and Sustainable Energy Transitions** (5 credits, second cycle studies-distance learning); an online lecture block on **metal needs for green transition & mineral exploration**; 8 hrs; 5-7 students
- 2024-present: **Climate, Energy and Society** (7.5 credits, first cycle studies within CEMUS); invited to deliver one lecture block on behalf of Smart Exploration Research Center on **ESG issues and how to involve local community/create local commitment**; 8 hrs; 15-20 students

University of Belgrade - Serbia (*taught in Serbian*)

- 2021-present: Seismic methods (5 credits, first cycle studies); one online lecture block on hardrock seismic and mineral exploration; 8 hrs; 8-12 students

SPE Europe Energy GEOHackathon (*taught in English*)

- 2023: **Basics of Geophysics** (all study cycles and extent), one lecture block, online; 8 hrs; 30-40 students and YPs

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Konstantinidis, E., Apostolopoulos, A., Malehmir, A., Papadopoulou, M., **Markovic, M.**, Vakalas, I., Kranis, H. and Skourtsos, E., **2026**. Reflection seismic surveying at the volcanic geothermal system of Petra (Lesvos Island, Greece). *Geothermics*, 139, 103690.
2. Wilczynski, Z., Kaslilar, A., Malehmir, A., Juhlin, C., **Markovic, M.**, Gyger, L. and Manzi, M., **2026**. Performance of untrenched surface-DAS in near-surface seismic exploration: a comparison with conventional sensors. *Geophysical Journal International*, 245(2), p.ggag082.
3. Yang, L., Malehmir, A. and **Markovic, M.**, **2026**. Unsupervised Physics-Guided Deconvolution for High-Resolution Hardrock Seismic Imaging. *Geophysical Prospecting*, 74(1), p.e70123.
4. **Markovic, M.**, Malehmir, A., Manzi, M. and Hamerslag, R., **2025**. Feasibility of multicomponent reflection seismic imaging for direct targeting of metallic mineral deposits, *Geophysics*, 90(6), B357-B366.

5. Gregersen, U., Fyhn, M.B., Keiding, M., Abramovitz, T., Bjerager, M., Vosgerau, H., Smit, F.W., Funck, T., Mathiesen, A., Mørk, F. and Schovsbo, N.H., et al., **2025**. Seismic investigations of eight geological structures for potential storage of CO₂ in Denmark: an introduction. *GEUS Bulletin*, 60.
6. Yang, L., Malehmir, A. and **Markovic, M.**, **2025**. Enhanced hardrock seismic imaging through multi-scale information-guided unsupervised learning. *Journal of Geophysical Research: Machine Learning and Computation*, 2(2), p.e2025JH000627.
7. Malehmir, A., **Markovic, M.**, Abramovitz, T.J. and Gregersen, U., **2025**. Geological carbon storage site characterization using a dual element seismic recording technology. *Scientific Reports*, 15(1), p.12937.
8. Papadopoulou, M., Malehmir, A., **Markovic, M.** and Berglund, J., **2023**. High-resolution P- and S-wavefield seismic investigations of a quick-clay site in southwest of Sweden, *Near Surface Geophysics*, 21(6), 458-472.
9. **Markovic, M.**, Malehmir, R. and Malehmir, A., **2023**. Diffraction denoising using unsupervised learning technique. *Geophysical Prospecting*, 71(7), 1215-1225.
10. **Markovic, M.**, Malehmir, R. and Malehmir, A., **2022**. Diffraction pattern recognition using deep semantic segmentation. *Near Surface Geophysics*, 20(5), 507-518.
11. Hloušek, F., Malinowski, M., Bräunig, L., Buske, S., Malehmir, A., **Markovic, M.**, Sito, L., Marsden, P. and Bäckström, E., **2022**. Three-dimensional reflection seismic imaging of the iron oxide deposits in the Ludvika mining area, Sweden, using Fresnel volume migration. *Solid Earth*, 13(5), 917-934.
12. Malehmir, A., **Markovic, M.**, Marsden, P., Gil, A., Buske, S., Sito, L., Bäckström, E., Sadeghi, M., and Luth, S., **2021**. Sparse 3D reflection seismic survey for deep-targeting iron-oxide deposits and their host rocks, Ludvika Mines-Sweden. *Solid Earth*, 12, 483-502.
13. **Markovic, M.**, Maries, G., Malehmir, A., von Ketelholdt, J., Bäckström, E., Schön, M., and Marsden, P., **2020**. Deep reflection seismic imaging of iron-oxide deposits in the Ludvika mining area of central Sweden. *Geophysical Prospecting*, 68, 7-23.

Manuscripts submitted/in revision

1. Yang, L., Malehmir, A. and **Markovic, M.** 5D Sparse Seismic Data Reconstruction using Self-Supervised Learning and Recoverability Analysis. *Submitted to IEEE TGRS*.
2. **Markovic, M.**, Malehmir, A., Koufopoulou, A., Paletko, G. and Hamerslag, R. Relative Gravity Surveying Using Seismic 3C MEMS-based Accelerometers. *In revision in IEEE GSRL*.
3. Koufopoulou, A., Malehmir, A., Högdahl, K., **Markovic, M.**, Snyder, D., Lahtinen, R. and Luth, S. Twin short-lived Paleoproterozoic subduction system in a mineral-endowed domain, northern Fennoscandian Shield. *In revision in Precambrian Research*.
4. Alofe, E., **Markovic, M.**, Malehmir, A. and Tryggvason, A. Seismic characterization of a historic mine tailing and deep-targeting of their underlying intact mineral resources. *In revision in Geophysics*.

CONFERENCE CONTRIBUTIONS

1. **Markovic, M.**, Malehmir, A., Högnäs, J. and Hamerslag, R., **2026**. Sparse 3D Reflection Seismic Survey for Imaging Lateral Extensions of Iron-Oxide Mineralization at Blötberget, Sweden. EAGE-NSG Annual Meeting, Thessaloniki, Greece (EarthDoc).
2. Van Santvliet, F., **Markovic, M.**, Malehmir, A., Almqvist, B., Armstrong, R., Imaña, M. and Sandoval, D., **2026**. Physical Property Analysis for Deep Seismic Targeting of the Viscaria Cu-Fe Deposit, Northern Sweden. NSG Annual Meeting, Thessaloniki, Greece (EarthDoc).
3. Koufopoulou, A., Malehmir, A., Zappalà, S., **Markovic, M.**, Hamerslag, R. and Högnäs, J., **2026**. Upper Crustal-Scale Seismic Investigation of Iron-Oxide-REE Endowed Deposit at Blötberget, Central Sweden. EAGE-NSG Annual Meeting, Thessaloniki, Greece (EarthDoc).
4. Malehmir, A., **Markovic, M.**, Gyger, L., Yang, L., Stender, V., Hamerslag, R. and Högnäs, J., **2026**. Water-Coupled DAS-VSP Experiments at an Iron-Oxide Deposit in Central Sweden. EAGE-NSG Annual Meeting, Thessaloniki, Greece (EarthDoc).

5. Velter, F., Malehmir, A., **Markovic, M.**, Juhlin, C. and Tryggvason, A., 2026, September. Revisiting Upper-Crustal Seismic Reflection Data from the Kiruna-Viscaria Mineral Belt, Northern Sweden. EAGE-NSG Annual Meeting, Thessaloniki, Greece (EarthDoc).
6. Konstantinidis, E., Malehmir, A., Apostolopoulos, G., Papadopoulou, M., **Markovic, M.** and Spyridonos, E., **2026**. Integrated Seismic Imaging of a Fault-Controlled Geothermal Prospect at Petra, Lesvos, Greece. EAGE-NSG Annual Meeting, Thessaloniki, Greece (EarthDoc).
7. **Markovic, M.** and Malehmir, A., **2026**. Integrating Physical Property Studies with Seismic Methods for Mineral Exploration: Examples from Sweden. NWGM, Turku, Finland.
8. Koufopoulou, A., Malehmir, A., **Markovic, M.**, Snyder, D.B. and Högdahl, K., **2026**. BABEL lithospheric seismic transect across a mineral-endowed Archean-Paleoproterozoic boundary. NWGM, Turku, Finland.
9. Malehmir, A., **Markovic, M.**, Hamerslag, R., Högnäs, J., Persson, A. **2026**. Decade of Innovation: From Seismic Targeting to Discovery at Blötberget. NWGM, Turku, Finland.
10. Konstantinidis, E., Malehmir, A., Papadopoulou, M., **Markovic, M.**, Apostolopoulos, G. and Spyridonos, E., **2025**. A Seismic Investigation of the Petra Depression for Geothermal Exploration in Lesvos, Greece. EAGE-NSG, Naples, Italy.
11. Apostolopoulos, G., Malehmir, A., Vakalas, I., Kranis, H., Leontarakis, K., Orfanos, C., Konstantinidis, E., **Markovic, M.**, Papadopoulou, M., Chailas, S. and Skourtsos, E., **2025**. Legacy Data Analysis and Integrated Geological and Geophysical Survey for Geothermal Site Exploration at Lesvos, Greece. EAGE Annual Meeting, Toulouse, France.
12. Yang, L., Malehmir, A. and **Markovic, M.**, **2025**. Unsupervised Learning with Frequency-Guided Constraints for Improved Hardrock Seismic Imaging. EAGE Annual Meeting, Toulouse, France.
13. Koufopoulou, A., Malehmir, A. and **Markovic, M.**, **2025**. Uncovering fossil subduction in a mineral-endowed Paleoproterozoic terrain: Reprocessing legacy BABEL seismic lines from Bothnian Bay, Sweden. EGU General Assembly.
14. Wilczynski, Z., Kaslilar, A., Malehmir, A., Juhlin, C., Gyger, L., **Markovic, M.** and Manzi, M., **2025**. Comparative analysis of surface-DAS and collocated 3-component geophones for surface-wave studies. EGU General Assembly.
15. Gyger, L., Malehmir, A., Wilczynski, Z., **Markovic, M.**, Manzi, M., Valishin, O. and Hamerslag, R., **2025**. Distributed acoustic sensing for mineral exploration: a pilot study from central Sweden. EGU General Assembly.
16. **Markovic, M.** and Malehmir, A., **2025**. Cost-effective Broadband Multicomponent Reflection Seismic Survey for Direct Targeting of Metallic Mineral Deposits. KEGS PDAC Symposium, Toronto, Canada.
17. Zappalà, S., Malehmir, A., Papadopoulou, M., Westgate, M., Putnaite, J., **Markovic, M.**, Gregersen, U., Abramovitz, T., Keiding, M. and Bjerager, M., **2024**. Reflection Seismic Acquisition for Onshore CCS Applications in Denmark—an Overview. EAGE-GET, Rotterdam, Netherlands (EarthDoc)
18. Malehmir, A., **Markovic, M.**, and Abramovitz, T., **2024**. Unravelling Detailed Geological Structures for CCS Applications in Rødby-Denmark. EAGE Annual Meeting, Oslo, Norway (EarthDoc).
19. Malehmir, A., **Markovic, M.**, and Papadopoulou, M., **2024**. Synchronized nodal and fiber-optic seismic surveys for deep targeting in denied GPS-time environments. KEGS PDAC Symposium, Toronto, Canada.
20. Putnaite, J., Malehmir, A. and **Markovic, M.**, **2023**. 2D Reprocessing of a Sparse 3D Seismic Dataset in Central Sweden for Improved Targeting Purposes. EAGE-NSG Annual Meeting, Edinburgh, UK (EarthDoc).
21. **Markovic, M.**, Malehmir, A. and Manzi, M., **2023**. Establishing a baseline multi-component reflection seismic imaging of iron-oxide deposits at Ludvika mines, central Sweden. EAGE Annual Meeting, Vienna, Austria (EarthDoc).
22. Malehmir, A., **Markovic, M.**, and Papadopoulou, M., **2023**. Establishment of a hardrock seismic test site in central Sweden. KEGS PDAC Symposium, Toronto, Canada.
23. **Markovic, M.**, Malehmir, A. and Malehmir, R., **2022**. Coupled Hough-transform and deep learning for improved diffraction delineation. EAGE-NSG Annual Meeting, Belgrade, Serbia (EarthDoc).

24. Kaslilar, A., Wilczynski, Z., **Markovic, M.**, Marsden, P., Manzi, M. and Malehmir, A., **2022**. A Prefeasibility Study for Passive Seismic Imaging in Hard Rock Environment. EAGE-NSG Annual Meeting, Belgrade, Serbia (EarthDoc).
25. **Markovic, M.**, Malehmir, R. and Malehmir, A., **2022**. Diffraction denoising using autoencoder. EAGE Annual Meeting, Madrid, Spain (EarthDoc).
26. **Markovic, M.**, Malehmir, R. and Malehmir, A., **2021**. Diffraction recognition using deep learning. EAGE-NSG Annual Meeting, Bordeaux, France (EarthDoc).
27. Hlousek, F., Malinowski, M., Buske, S., Bräunig, L., Singh, B., Malehmir, A., **Markovic, M.**, Koivisto, E., Heinonen, S., Sito, L., Juurela, S., Bäckström, E., Schön, M. and Marsden, P., **2020**. A tailored workflow for advanced high-resolution seismic imaging of mineral exploration targets. EAGE-Mineral Exploration Symposium, online (EarthDoc).
28. Malehmir, A., **Markovic M.**, Marsden, P., Buske, S., Sito, L., and Bäckström, E., **2020**. Advancing reflection seismic methods for deep-targeting mineral deposits: A series of 2D and 3D surveys. EAGE Annual Meeting, Amsterdam, The Netherlands (EarthDoc).
29. **Markovic, M.**, Malehmir, A., and Socco, L.V., **2019**. Young professional aspects of Smart Exploration project: Career Management, Marketing and Sustainability. EAGE Annual Meeting, London. EAGE Annual Meeting, London, UK (EarthDoc).
30. **Markovic, M.**, Maries, G., Malehmir, A., Bäckström, E., Schön, M., Jakobsson, J., and Marsden, P., **2018**. Deep targeting iron-oxide mineralization using reflection seismic method: A case study from the Ludvika Mines of Sweden. EAGE-NSG Annual Meeting, Porto, Portugal (EarthDoc).
31. Petrovic, S., **Markovic, M.**, Komatina, S., Suto K., Burazer, M., and Urosevic, M., **2017**. Effective Geophysical Methodology for Investigation of a complex Landslide system in Valjevo, Serbia. EAGE Annual Meeting, Paris. EAGE Annual Meeting, Paris, France (EarthDoc).
32. **Markovic M.**, Urosevic, M., Komatina, S., Suto, K., Arsenovic, S., **2017**. Application of geophysical techniques for investigation of landslide in Lopare, Bosnia & Herzegovina. AGES/SEG/EAGE Congress & Technical Exhibition, Belgrade, Serbia.
33. **Markovic M.**, Cukavac, M., Bugar, M., **2017**. Application of magnetic method in archaeology at Grobljiste site near the Madjere, Serbia. AGES/SEG/EAGE Congress & Technical Exhibition, Belgrade, Serbia.
34. Burazer, M., Urosević, M., **Markovic M.**, Vujic, M., **2017**. Seismic and resistivity tomography in landslide investigation. AGES/SEG/EAGE Congress & Technical Exhibition, Belgrade, Serbia.

POPULAR SCIENCE PUBLICATIONS

1. Malehmir, A., **Markovic, M.**, Hamerslag, R. and Högnäs, J., 2016. Building confidence at depth: Over a decade of innovation in deep mineral targeting. *First Break*, 44(8), 25-32.
2. Malehmir, A., **Markovic, M.**, Papadopoulou, M., Högdahl, K., Ask, M., Strømme, M., Pitcairn, I., Martin, T., Zack, T., Majka, J., Svensson, M., and Hamerslag, R., 2024. Smart Exploration Research Centre: Knowledge and innovation for exploration of critical raw materials. *First Break*, 42(8), 89-93.
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