2024 British Geophysical Association Gray-Milne Travel Bursary Outcome Report: EGU General Assembly 2025

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Summary

I extend my sincere gratitude to the British Geophysical Association (BGA) for awarding me the 2024 Gray-Milne Travel Bursary. This generous support was instrumental in enabling me to present my PhD research at the European Geosciences Union (EGU) General Assembly 2025 in Vienna, Austria. The EGU is one of the largest and most prominent geoscience conferences globally, providing an unparalleled platform for disseminating research and engaging with the international scientific community.

Research Presented

My presentation, titled "Seismic Absorption and Scattering Imaging at Aluto Volcano in the Main Ethiopian Rift", focused on a novel application of seismic attenuation tomography. At Aluto volcano Ethiopia's premier pilot site for geothermal exploration, I used coda wave attenuation (absorption) and peak delay time (scattering) to map subsurface fluids, high temperature zones, and structural features like faults.

This work demonstrates that combining absorption and scattering provides a powerful tool for de-risking geothermal exploration by identifying ideal targets: zones of hot fluids within fractured, permeable rock.

Conference Experience

Attending EGU2025 was an immensely valuable experience. Presenting my work to a diverse and expert audience led to stimulating discussions and constructive feedback from leading geophysicists and seismologists. These interactions have provided fresh perspectives on my methodology and its potential applications in other geothermal systems worldwide.

Beyond my own session, I attended numerous talks and posters on seismic imaging, DAS, geothermal exploration and others. This broadened my understanding of current challenges and innovations in geophysics and inspired new ideas for the next phase of my research. The opportunity to network with peers and established academics is invaluable for building collaborative relationships that will extend beyond my PhD.



Figure 1: Presenting my research at the EGU25 conference.

Acknowledgements



Figure 2: At the EGU General Assembly in Vienna.

I would once again like to thank the BGA for the Gray-Milne Travel Bursary. This funding directly covered my conference registration fees and a significant portion of my travel costs. The BGA's practice of providing the award promptly and upfront, without the financial strain of reimbursement processes, is highly commendable and greatly appreciated by postgraduate students. This support was crucial for my participation in this premier conference and has significantly contributed to my professional development.

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