

Research Associate – Tectonics and Ice sheets

College/Division College of Sciences and Engineering

School/Section Institute for Marine and Antarctic Studies – Oceans and Cryosphere

Location Hobart – Salamanca

Classification Academic Level A/B

Reporting line Reports to Jo Whittaker - ARC Australian Centre for Excellence in Antarctic Science

Position Summary

The University of Tasmania (UTAS) is building a vision of a place-based University with a mission to enhance the intellectual, economic, social and cultural future of Tasmania, and from Tasmania, contribute to the world in areas of distinctive advantage. The University recognises that achieving this vision is dependent on the people we employ as well as creating a people-centred University that is values-based, relational, diverse, and development-focused.

The Research Associate will work on Antarctic seismic stratigraphy and integrate with other disciplines and datasets to make key insights about past ice sheets and volcanism. This position is part of the ARC Australian Centre for Excellence in Antarctic Science (ACEAS), a national-scale, University-led, international centre focused on helping the world community prepare for climate risks emerging from East Antarctica and the Southern Ocean by integrating knowledge of the ocean, atmosphere, cryosphere and ecosystems, and their interplay. ACEAS will grow to support the activities of around 150 researchers, administrative staff, and students, with exciting opportunities to collaborate across disciplinary and institutional boundaries.

The 3-year Postdoctoral Research Associate position in Tectonics and Icesheets will commence in early 2022. The successful candidate will contribute to ACEAS Program 3 which addresses the overarching question: "What is the risk of ice mass loss from key subglacial basins over the next decades to centuries, and what are the consequences for the local oceans and ecosystems?". Specifically, the successful candidate will investigate East Antarctic icesheet advance and retreat (0-34 Ma) through detailed interpretation of existing and new offshore seismic reflection profiles integrated with other geophysical, geological, and icesheet information. This will enable insights into deep past ice sheet states, particularly in vulnerable marine-based sectors in East Antarctica and better understanding of sediment sources and sinks, sediment pathways, timing and extent of offshore volcanism with links to heat flow. The successful candidate will participate in planned fieldwork including possible research voyage/s to the offshore Denman region in the summers of 2022/3 – 2024/5 to collect seismic reflection profiles and other geophysical and geological information.

We are an inclusive workplace committed to 'working from the strength that diversity brings' reflected in our Statement of Values. We are dedicated to attracting, retaining and developing our people and are committed to inclusive principles. We celebrate the range of diverse assets that gender identity, ethnicity, sexual orientation, disability, age and life course bring. Applications are encouraged from all sectors of the community. Tell us how we can make this job work for you.





What You'll Do

- Participate in Antarctic fieldwork to collect seismic reflection profiles and other datasets.
- Process, and/or supervise the processing of, seismic reflection data.
- Interpret seismic reflection profiles.
- Integrate seismic reflection data and other geophysical/geological/glacial/oceanographic information.
- Collaborate closely with researchers from other disciplines to reveal icesheet, sedimentary, oceanographic, and volcanic behaviour and patterns.
- Communicate results through oral presentations, scientific journal articles and adhere to FAIR data management principles.
- Supervise related research projects at the Honours and/or HDR level.
- Undertake other duties as assigned by the supervisor.

What We're Looking For (success criteria)

- A PhD, or equivalent postdoctoral experience, in a relevant area (e.g. seismic stratigraphy, marine geoscience).
- A good record of, and continuing commitment to, research that has international recognition and made worthwhile contributions to the field of geophysics/marine geoscience demonstrated by a record of quality publications and presentations at conferences.
- Experience in seismic data collection, shipboard processing, and preliminary analysis in remote environments (e.g., from oceanographic vessels and/or in polar regions).
- Demonstrated expertise in processing and interpreting seismic data.
- Willingness to participate in ocean-going field work for extended periods (2 months +).
- Demonstrated ability to work efficiently with minimal supervision, with a capacity to set and prioritise strategic research directions, and to design and complete collaborative research programs to achieve scientific goals.
- Demonstrated ability to work collaboratively in a research team covering multiple disciplines and achieve collective as well as individual outcomes.

Other desirable criteria

- Experience/familiarity with Antarctic/Southern Ocean seismic data.
- Experience with other marine geophysical or geological methods (magnetics, acoustics, sediments).

University of Tasmania

The University of Tasmania is an institution with an enduring commitment to our state and community, and a strong global outlook. We are committed to enhancing the intellectual, economic, social and cultural future of Tasmania. Our <u>Strategic Direction</u> strongly reflects the University community's voice that our University must be place based but globally connected as well as regionally networked and designed to deliver quality access to higher education for the whole State.

We believe that from our unique position here in Tasmania we can impact the world through the contributions of our staff, students and graduates. We recognise that achieving this vision is dependent on the people we employ, as well as creating a university that is values-based, relational, diverse, and development-focused.

Check out more here:

https://www.utas.edu.au/jobs





https://www.utas.edu.au/careers/our-people-values-and-behaviours	

The intention of this position description is to highlight the most important aspects, rather than to limit the scope or accountabilities of this role. Duties above may be altered in accordance with the changing requirements of the position.

