## MARIE THARP LECTURE SERIES FOR OCEAN RESEARCH | **NO.44**





**Prof. Dr. Gabi Hegerl** University of Edinburgh



Photo: Marie Tharp working watching the seismic plotter print a fathometer record aboard the USNS Kane in 1968

## Wednesday, 05<sup>th</sup> April 2023, 11:00 CEST GEOMAR Lecture Hall West Shore Campus | Düsternbrooker Weg 20, 24105 Kiel

## **Climate Change over the Instrumental Period:** Causes, questions, extremes, and the safe landing lighthouse

Live and in-person event!



## Prof. Hegerl's presentation focuses on observed changes over the instrumental period, and their causes.

Long term changes can be shown to reflect external influences on climate strongly, from clusters of volcanic eruptions to the evolving greenhouse warming. The observed record also throws up questions, through some periods of divergence between observed and climate model simulated changes, or extremes that are surprisingly strong. The observed record

also shows interesting and impactful extreme events that can help sample what may occur, and be strengthened, in the future. Some recent extreme events show severe consequences that highlight the importance of earth system feedbacks such as fire or vegetation dieback. The world climate research programme lighthouse 'safe landing climates' focuses on predicting future climate risk, and draws information from past and present, in addition to future climate simulations to identify high risk possibility under continuing warming.

Afterwards: informal, catered get-together. Early career researchers of all genders are welcome to come and talk to Dr. Hegerl about career paths, etc.



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