



Universität
Bremen



Doctoral Colloquium

17 February 2026
16.00 hrs.
GEO building, room 1550



Joely Marie Maak

Biogeochemical interactions in volcanically active seafloor environments

Online option: <https://uni-bremen.zoom-x.de/j/67060382796?pwd=EHappf1dkQCloJ32H1iHU0NhI67IW.1>

Biogeochemical interactions in volcanically active seafloor environments

Joely Marie Maak

Shallow-water hydrothermal systems release large amounts of geologically old carbon into the ocean, yet the fate of this carbon remains poorly constrained.

In this colloquium, I will present results from hydrothermal sites off Milos (Greece) and Kueishantao (Taiwan), showing how microorganisms assimilate vent-derived carbon and how carbon and hydrogen isotopic signatures trace microbial processes in these extreme environments.

The results highlight the potential of carbon and hydrogen isotopes to reveal and quantify microbial processes that are otherwise invisible, providing a new window into carbon cycling at the interface of the solid Earth and the biosphere.