

Geowissenschaftliches Kolloquium

Robots in the Deep Ocean: Advances in mid-ocean ridge studies

Donnerstag, 18. April 2013 - 16.15 Uhr

Prof. Dr. Colin Devey

Helmholtz Zentrum für Ozeanforschung, GEOMAR, Kiel



Although systematic scientific exploration of our planet has certainly been going on since at least Darwin's time, and despite an ever-increasing rate of technological development aiding exploration, most of our planet (the deep seafloor) remains unexplored. I will show, using examples from the mid-ocean ridges, how new ship-based and autonomous technologies are already revolutionizing this situation, allowing us to examine magmatic, tectonic and hydrothermal processes there with unprecedented spatial and temporal resolution. We will see how good (or bad!) we are at determining the thermal budget of a spreading segment, what effects magma focussing has on slow-spreading ridges, and how spreading-axis volcanoes work. I will show how, in the next 10-15 years, truly autonomous robotic systems will open up Earth's final true frontier - the abyssal plains.



Colin Devey studied Geology at the Royal School of Mines, University of London and did his PhD at the University of Oxford. In Nancy, France, he worked on the geochemistry of seamounts near Tahiti. 1988 he came to the Kiel where he completed his habilitation. After 6 years in Bremen as Professor for the Petrology of the Ocean Crust, he returned to Kiel in 2004 as Professor for Magmatic and Hydrothermal Systems at GEOMAR. His research interests concern the petrogenesis and the energy and mass balances of submarine volcanic systems

Institut für Geologische Wissenschaften

Großer Hörsaal (C.011), Haus C
Malteserstrasse 74-100
12249 Berlin

