



## ECORD Summer School on "Geodynamics of mid-ocean ridges"

August 31-September 11, 2009 at the Center for Marine Environmental Sciences (MARUM), University of Bremen, Germany

**Sponsors:** European Consortium for Ocean Research Drilling (ECORD), Bremen International Graduate School for Marine Sciences (GLOMAR), MARUM, InterRidge.

**Organizers:** Ulla Röhl, Dierk Hebbeln, Benoit Ildefonse, Wolfgang Bach

**Instructors:** Mathilde Cannat, Damon Teagle, Catherine Mevel, Donna Blackman, Colin Devey, Jürgen Köpke, Sven Petersen, Carlos Garrido and many others



The **thematic focus** of the summer school is **slow-spreading mid-ocean ridges**, which feature a remarkable diversity in lithology and structure. Some segments of the slow-spreading ridges produce robust basaltic volcanic centers, with magmatic accretion occurring through complex axial magma plumbing systems. Other portions feature modes of crustal accretion that are dominantly tectonic. Oceanic core complexes form episodically, commonly near the ends of slow-spreading segments. The domal cores of these features are interpreted as exposures of lower crust and/or upper mantle rocks exhumed along low-angle detachment faults. Ocean Drilling offers a unique opportunity to access lithologies in these areas that were initially emplaced at the base of the

lithosphere. Drilling in proximity of hydrothermal vents has provided a wealth of new insights into the fluid-rock interactions and the development of seafloor massive sulfide deposits. Slow-spread crust is also a rich and diverse habitat for microbial communities.



**Lecture topics** range from mantle melting to tectonic exhumation of mantle to hydrothermal/microbial interactions. Participants will be introduced to a full range of IODP related topics from general introduction to the program to writing IODP proposals. In *The Virtual Ship*, Ocean Drilling cores from the Mid-Atlantic Ridge stored at the **IODP Bremen Core Repository (BCR)** will be used to teach "shipboard" methodologies applied

on the drilling vessels of the program. These include core curation, visual core description, physical properties measurements, and petrographic observations. Also planned is a field trip to a Devonian submarine volcanic province.



A registration form will be circulated in spring 2009.

See [http://www.glomar.uni-bremen.de/ECORD\\_Summer\\_School\\_2009.html](http://www.glomar.uni-bremen.de/ECORD_Summer_School_2009.html) for further information