



## **Data and first results from Longtime Environmental Monitoring at the Logatchev Hydrothermal Field**

**H.-H. Gennerich, H. Villinger**

University of Bremen

The mid oceanic spreading axis are centers of recent ore generation, accomodate little known chemotrophic biological communities, 90 per cent of the global volcanism and contribute 25 per cent of the heat released from the earth. But little is known about these systems because there location in the depth of the oceans and much less about there changes in time. Target of a joint multidisciplinary approach to learn more about the temporal variations of a hydrothermal field was and is the Logatchev Hydrothermal Field (LHF) at the Mid Atlantic Ridge in the framework of the SPP1144 of the German Research Foundation. It was chosen because of its high representativity with its moderate spreading rate, the mixture of basaltic and mantle rocks in the sub-surface and its pronounced bathymetric relief. In the Logatchev Hydrothermal Field (LHF) hydrothermal activity is observed at several distinct sites. Focussed high temperature outlets at black smokers were found as well as diffuse warm water outflow. Four locations in the LHF were equipped with instruments, to monitor physical parameters for about one year. At OBPsite an ocean-bottom-pressurimeter (OBP) and an ocean-bottom-tiltmeter (OBT) were installed, monitoring water pressure, temperature at two minutes intervals as well as the sea floor inclination. At Mooring-site a sensor chain scanned the temperatures of the bottom water every 6 minutes in 1 m intervals, from the sea floor to 25 m vertically above. Quest and Irina2 mussel fields were instrumented with 10 temperature loggers each, registering the temperatures every 5 minutes. In this poster data and results from the monitoring stations are presented.