

**Bremen University - Centre of Marine Environmental Sciences MARUM**

**PhD Position: Design and application of an integrated gas flare detection system for marine environmental applications**

Within the framework of the Marie Curie Initial Training Network SENSENET funded by the European Commission, MARUM is offering a PhD position. Potential candidates should have a good background in geosciences/geophysics/geology. Candidates from other disciplines such as Physics or Electrical Engineering may also apply whereby the topic of the dissertations will then have a more technical focus. The position will be hosted by the University of Bremen, MARUM)( <http://www.marum.de> ).

The key objective of this project is to develop an integrated sensor package to detect and quantify methane seepage emanating from the seafloor. Methane seepage from the seafloor is a topic of high relevance due to methane's potential role in global warming ( <http://www.marum.de/Page8695.html> ). Until recently there was no method available that allowed for even roughly quantifying methane release into the atmosphere

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. Preliminary work on this topic has focused on the investigation and application of acoustic sonar systems. The activities will be embedded into the multi-disciplinary research on fluid and gas seepage at MARUM as well as the investigations of hydrothermal vent systems at NOCS (National Oceanography Centre, Southampton, UK)

The PhD candidate will be trained in locating and subsequent investigation of fluid seeps on the seabed and will gain experience of work at sea on research vessels. The task will be carried out in close cooperation with geoscientists and engineers at MARUM, NOCS and IOW (The Leibniz Institute for Baltic Sea Research, Warnemünde) to construct and field-test the sensor package.

According to the FP7 Marie Curie Initial Training Networks funding guidelines of the EC the

candidate must not have resided or carried out their main activity (work, studies, etc) in the country of their host organisation for more than 12 months in the 3 years immediately prior to the date of selection by the host institution. Monthly living allowances and all other expenses for the activities carried out by the ESR (mobility, travel, career exploratory, participation) are in accordance with the FP7 'People' Work Programme, Annex 3 and will be calculated on the basis of the specific candidate profile.

As the University of Bremen intends to increase the proportion of female employees in science, women are particularly encouraged to apply. In case of equal personal aptitudes and qualification priority will be given to disabled persons.

The position will be open until a candidate has been selected. Further enquiries and applications can be made to:

Prof. Gerhard Bohrmann ( [gbohrmann@marum.de](mailto:gbohrmann@marum.de) )

and

Dr. Christoph Waldmann ( [cwaldmann@marum.de](mailto:cwaldmann@marum.de) )

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<sup>1</sup>Nikolovska, A., Sahling, H., and Bohrmann, G.: Hydroacoustic methodology for detection, localization, and quantification of gas bubbles rising from the seafloor at gas seeps from the 30 eastern Black Sea, *Geochem. Geophys. Geosyst.*, 9, Q10010, doi:10.1029/2008GC002118, 2008