

G167-006

Room: 301A

Time: May 28 12:00-12:15

The Acoustical Calibration of the Methane Hydrate Plume using the Quantitative Echo Sounder off Joetsu in Japan Sea

Chiharu Aoyama[1]; Ryo Matsumoto[2]

[1] Natural Sci.Dept.,Japan's Independent Institute; [2] Earth and Planetary Sci., Univ. of Tokyo

<http://www.dokken.co.jp>

The research and training vessel Umitaka-maru(Tokyo Univ. of Marine Science and Technology) and the research vessel Nat-sushima(JAMSTEC) sailed to the methane seep area on a small ridge in the Naoetsu Basin, in the eastern margin of the Sea of Japan in 2004, 2005 and 2006 to survey the ocean floor gas hydrate and related acoustic signatures of methane plumes by using a quantitative echo sounder(Aoyama et al.2004). Detailed bathymetric profiles have revealed a number of mounds, pockmarks and collapse structures within 3km x 4km on the ridge at the water depth of 910m to 980m. In 2007 in order to observe methane hydrates acoustically with the quantitative echo sounder, it is necessary to grasp the conversion factor between the obtained acoustic data and the amount of methane hydrate bubbles. Accordingly, we will conduct the acoustic calibration experiment of methane hydrates on the actual sea area, utilizing the quantitative echo sounder.