



Stratified flows and internal waves in the Vema Fracture Zone of the Mid Atlantic Ridge

Nikolay Makarenko (1,2), Eugene Morozov (3), Roman Tarakanov (3), Tatiana Demidova (3), Dmitri Frey (3), and Klim Grigorenko (4)

(1) Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia (makarenko@hydro.nsc.ru), (2) Novosibirsk State University, (3) Shirshov Institute of Oceanology, Moscow, Russia, (4) Institute of Arid Zones, Rostov-on-Don, Russia

In this paper, we study stratified flows and internal waves in the Vema fracture zone of the Mid Atlantic Ridge. This fracture provides intense transportation of cold abyssal waters from the West Atlantic to the equatorial region of the East Atlantic [1]. The results of measurements [2,3] carried out in the cruises of RV Akademik Sergey Vavilov in 2014-2016 are presented. The structure of the near-bottom flow is studied experimentally on the basis of CTD- and LADCP profiling. Theoretical analysis involves mathematical formulation of stratified fluid flow which uses CTD-data obtained from field observation. Spectral properties and kinematic characteristics of internal waves are calculated and discussed.

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References

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