

A REVIEW ON OCEANIC INTERNAL WAVES

Fang Xin-hua Wang Jing-ming
(Shandong College of Oceanography)

Abstract

This paper gives a definition of oceanic internal waves and discusses briefly its role on oceanic processes. Various observation methods, data analyses and tests, and separation of different effects are summarized. GM spectral model is also mentioned. Internal waves in the upper ocean and shallow water area are discussed. Some recent results on special kinematic problem, such as the differences between vertical standing waves and progressive waves, turning depth and critical layer effect, are introduced. Several dynamical problems about generation, propagation and dissipation are overviewed. A further prospective work is outlined and it seems that nonlinear waves in shallow water and on continental shelf would interest Chinese oceanographers.

Keywords: *internal waves, GM spectral model, shallow water internal waves*



《水动力学研究与进展》创刊

由中国船舶科学研究中心等20多个单位形成的联合体创办的学术刊物《水动力学研究与进展》，于1986年第三季度创刊，国内外公开发行。该刊为季刊，办刊宗旨为反映我国国民经济和国防建设中，水动力学领域研究与实际应用的理论计算及试验等方面的最新成就，提高工程研究和设计水平，为社会主义四个现代化建设服务。该刊主要报道能源开发、海洋工程、船舶工程、化学环卫工程等方面有关海洋波浪载荷及流固相互作用，湍流与边界层，空泡及空泡机理，多相流，管道流，明渠流，水弹性，对流与扩散，生物流体力学，渗流，以及有关边缘学科的物理模型的理论及试验、新学科的进展和学术动态等。向该刊投稿及订阅该刊，可直接与上海市高雄路171号《水动力学研究与进展》编辑部联系。

李润田