



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

**Joint seminar of
Environmental Science Program, School of Science
and
Division of Environment**

Guest Seminar Notice

**Processes Affecting Nutrient Availability in the
South China Sea – An Overview**

by

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Abstract

Most of the South China Sea is oligotrophic. The availability of nutrients plays a critical role in determining the biological productivity in these waters. Studies in the past decade reveal that a myriad of processes may contribute to the supply of nutrients to the mixed layer to support primary production in the open South China Sea and these processes operate through different spatial and temporal scales. Thus, in addition to the conventional basin-wide diapycnal diffusion, endogenous nutrients from the sub-surface waters may be transported to the mixed layer by: winter overturn resulted from the combination of surface cooling and wind-induced mixing, wind induced and topographically induced upwelling, the action of internal waves, atmospheric pumping induced by tropical cyclones, and the actions of ocean eddies. Exogenous nutrients in the adjoining geochemical reservoirs may be added to the mixed layer of the open South China Sea through: riverine runoff, atmospheric deposition, nitrogen fixation, volcanic activities and benthic exchanges. The evidence that suggests the occurrence of these processes will be reviewed and the areas that may need further clarification will be noted.

Date : 30 April 2013 (Tuesday)

Time : 2:00pm – 3:00pm

**Venue : Room 4020 (Lift no. 2)
HKUST
Clear Water Bay
Kowloon**

(Host faculty: Prof. Hongbin LIU and Prof. Jianping GAN)

All Are Welcome!