Abstract for

Sino-German Mobility Project "CHESS- Chinese and European Coastal Shelf Seas Ecosystem Dynamics – a Comparative Assessment"

The significance of hydrodynamical noise in modelling dynamics in marginal seas

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An ongoing cooperation between the ocean University of China (OUC, prof. Chen Xueen) and the Institute of coastal Research HZG (prof Hans von Storch) deals with the issue of unprovoked variability ("hydrodynamics noise") in marginal seas. This issue is significant for the understanding of the dynamics, as being partly stochastic, partly deterministic, and for the detection of the effect of a forcing on the ocean, as well as for validation of ocean models.

The work is done in two PhD projects funded by CSC and supervised by Chen and von Storch. The first, by Tang, is almost completed, with two publications on the hydrodynamics noise in the Southern China Sea, and the preferred (namely small) scales of the noise; the second by Lin, commenced earlier this year, has examined the role of tides in increasing the signal-to-noise ratio, and will in future deal with the effect of this mostly small-scale noise on regional and local ecosystem trajectories.