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Internal wave damping in the East China in late summer 2014

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A field measurement was carried out to observe generation, propagation and damping of the internal waves on the continental shelf around 31N in the East China Sea during September 16-27, 2014. Two trawl-resistant bottom mount ADCPs (M1, M2) were deployed along 126.50E with 10 km apart.

Over the 10 km distance the dominant frequency internal wave group with periods around 500 s is estimated to dissipate its energy by about 30%. The damping process appears to be partly related with the higher-mode evolution at the downward station M1, compared with the 1st-mode dominancy at the upstream station (M2). Our observations suggest that the damping processes of internal waves on the continental shelf of the East China Sea occur by rather complicated manners than by the simple process due to frictional decaying.

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