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[Image PDF (674K)] [References]

## **Experimental Identification of Large Parametric Rolling of a Modern Large Passenger Ship**

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**Summary:** Modern large passenger ships usually have a buttock-flow hull shape with flat stern and large bow flare. Such shapes cause significant variations of the stability in waves. In the present study, measurements of roll motion of a scale model of a large passenger ship of 110,000 GT with such a hull shape in beam regular waves are carried out in a towing tank. The results demonstrate that when the ship has no bilge keels, large parametric rolling with 27 degrees of maximum amplitude appears at about half period of the natural roll period in 5m of wave height. The effects of wave height and roll damping on appearance and magnitude of the parametric rolling in beam seas are experimentally investigated.

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