

## THE PROBLEM OF THE COUPLING OF THE VERTICAL MOVEMENT CONTROL WITH ROLL MOVEMENT IN FAST FERRIES

**Joaquín Aranda, Rocío Muñoz-Mansilla, José Manuel Díaz**

*Dpto. Informática y Automática. UNED.*

*C/ Juan del Rosal, 16. 28040 Madrid. Spain*

*e-mail: [jaranda@dia.uned.es](mailto:jaranda@dia.uned.es), [rmunoz@dia.uned.es](mailto:rmunoz@dia.uned.es), [josema@dia.uned.es](mailto:josema@dia.uned.es)*

*tel: 91 3987148. fax: 91 3988663*

Abstract: Previous researches have studied the attenuation of heaving and pitching motion in fast ferries. One observed problem that appears in these cases is the fact that actuators action (for instance, asymmetries T-foil), waves incidence with angle, and the control action itself cause a coupling with roll movement, and therefore an increasing in the rolling vertical component. Roll motion can be less relevant than the damped longitudinal movement, but it is significant and, in fact, it can result in unpleasant effects to passengers. In this work an analysis and design of a roll control have been carried out.

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