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ESTIMATES DETERMINATION OF KINEMATIC PARAMETERS OF MARINE OBJECT RELATIVE AND TRANSIENT MOTION

The article is devoted to the separability problem of a marine object relative and transient motion based on the absolute linear speed estimates made by the on-board navigation system interpreting the results of its GLONASS positioning. Mathematical models of inverse problems are presented, the latter are used to estimate the real-time parameters of the sea surface current velocity, the sea surface current representing the transient motion. The problems are solved by the method of least squares in the sliding window and by the wavelet processing of the least squares estimates. The results of computational experiments are also presented.
Keywords: sea surface current, velocity, acceleration, GLONASS, relative and transient motion, least-squares method, hybrid navigation systems.

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