

SOME CHARACTERISTICS OF A NEW SUBMARINE MATHEMATICAL
MODEL AT THE PERISCOPE DEPTH

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Abstract: The effects of assuming a submarine model which does not accurately describe the dynamic system are presented in the paper. In the papers published so far submarine high-frequency disturbances are modelled by a simple affine form. The main disadvantage of such an approach is a poor correspondence with the real nature of submarine dynamics at the periscope depth. The modelling inaccuracies can result in biased estimates. Some results of the numerical analysis are also presented.

Key words: submarine control, model error, Kalman filter

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