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**Stationary solutions of the extended reduced Ostrovsky equation**

MARIA OBREGON, Universidad de Malaga (Spain), YURY STEPANYANTS, University of Southern Queensland (Australia), RAMON FERNANDEZ-FERIA, Universidad de Malaga (Spain) — The extended Ostrovsky equation describes large-amplitude internal oceanic waves affected by Earth's rotation, including an additional cubic term to take into account the effect of strong nonlinearities. Its reduced version, in which the small-scale, or Boussinesq, dispersion term is omitted, is relevant for the description of long internal waves in oceans, when their wavelengths are much larger than the basin depth. It may be of interest also for waves of other physical origin in nonlinear media with large-scale dispersion. In this work we present a systematic analysis of the stationary solutions to this extended reduced Ostrovsky equation and their categorization. Periodic and solitary solutions are constructed and their typical parameters are estimated for the natural oceanic conditions.

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