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**Steady radiating gravity waves: an exponential asymptotics approach**

Steady radiating gravity waves due to uniform flow past bottom topography or due to a pressure disturbance moving at constant speed on the free surface, are studied at low Froude numbers ($F \ll 1$). In this limit, even though the wave amplitudes are exponentially small with respect to $F$, weakly nonlinear effects (controlled by the topography/pressure dimensionless amplitude, $\varepsilon \ll 1$) can be as important as linear propagation effects (controlled by $F$), and computing the wave response for $F, \varepsilon \ll 1$ generally requires exponential (beyond-all-orders) asymptotics. Adapting to gravity waves the asymptotic analysis of the fKdV equation presented in Kataoka & Akylas (Physica D 435, 2022), we compute the nonlinear wave responses for various topography/pressure profiles. The asymptotic results compare favorably against direct numerical solutions of the water wave equations for a wide range of $F$ and $\varepsilon$, in contrast to the linear wave response whose validity is rather limited. (This is joint work with Takeshi Kataoka, Kobe University, Japan.)