Summary: A modified version of the mild-slope equation is derived and its predictions of wave scattering by two-dimensional topography are compared with those of other equations and with experimental data. In particular, the modified mild-slope equation is shown to be capable of describing known scattering properties of singly and doubly periodic ripple beds, for which the mild-slope equation fails. The new equation compares favourably with other models of scattering which improve on the mild-slope equation, in that it is widely applicable and computationally cheap.

MSC:

76B15	Water waves, gravity waves; dispersion and scattering, nonlinear interaction
86A05	Hydrology, hydrography, oceanography

Cited in **1** Review
Cited in **38** Documents

Keywords:

wave scattering; two-dimensional topography; periodic ripple beds

Full Text: DOI

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