



Runup of landslide-generated waves

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Runup of waves generated by submarine landslides is studied within the shallow-water theory. The problem of wave shoaling and runup is studied analytically for two specific convex bottom profiles ($h \sim x^{4/3}$ and $h \sim x^4$). For certain conditions on the landslide characteristics (speed and volume per unit cross-section) the wave field can be described explicitly. The runup of the landslide generated wave approaching the coast is studied analytically assuming that the wave does not break at the shoreline. The runup characteristics depend on the shape of the landslide, distance to the shore and the Froude number.