

[Flynn, Morris R.](#); [Onu, Kristjan](#); [Sutherland, Bruce R.](#)

Internal wave excitation by a vertically oscillating sphere. (English) Zbl 1059.76013
J. Fluid Mech. 494, 65-93 (2003).

The authors derive and analyze a formula for the structure of small-amplitude Boussinesq internal wave cones generated by a vertically oscillating sphere. Unlike the corresponding formula for an oscillating circular cylinder, the theory developed in this paper predicts that the centerline amplitude of the beam decreases monotonically over its extent. The theory neglects the dynamics of viscous boundary layers surrounding the sphere, and it assumes that the along-beam variations are negligibly small.

Reviewer: [Messoud A. Efendiev \(Berlin\)](#)

MSC:

- [76B55](#) Internal waves for incompressible inviscid fluids
- [76D33](#) Waves for incompressible viscous fluids
- [76-05](#) Experimental work for problems pertaining to fluid mechanics

Cited in **15** Documents

Keywords:

[centerline amplitude](#); [viscous boundary layer](#); [Boussinesq approximation](#)

Full Text: [DOI](#)