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# The Effect of Current Shear on Topographic Rossby Waves

**I.L. Collings**

*Department of Mathematics, Deakin University, Waurn Ponds, Victoria 3217, Australia*

**R. Grimshaw**

*Department of Mathematics, University of Melbourne, Parkville, Victoria 3052, Australia*

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### ABSTRACT

Topographic Rossby waves are long-period waves which occur on continental slopes. In this paper we examine the effect of a mean current on these waves, when the current is directed along the isobaths and has a linear shear in the transverse direction. Solutions are obtained in terms of Whittaker functions and are applied to some data analyzed by Hamon *et al.* (1975), which has been interpreted as evidence of topographic Rossby waves by Garrett (1979). The modifications due to a linear friction law are also considered.

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Headquarters: 45 Beacon Street Boston, MA 02108-3693

DC Office: 1120 G Street, NW, Suite 800 Washington DC, 20005-3826

[amsinfo@ametsoc.org](mailto:amsinfo@ametsoc.org) Phone: 617-227-2425 Fax: 617-742-8718

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