Geoscientific
Model Development
Discussions

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Interactive comment on "The Matsuno baroclinic wave test case" by Ofer Shamir et al.

Ofer Shamir et al.

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The, mainly technical, comments raised by the Editor will be handled when the revised version of the paper is prepared following the reviews the MS receives. It should be stressed that the proposed test case is based on explicit expressions (derived from analytic solutions of the differential equations) so that the codes are verified by the success of the simulation. An error in generating the initial fields is bound to result in an incorrect simulation in which the simulated fields deviate from the initial fields substantially after several time steps. Also, we've verified that our codes can be applied as is to arbitrary lon-lat grids and are not restricted to the regular, equally-spaced, lon-lat grid used in the MS. This is demonstrated in the attached figure that shows the initial u (left), v (center) and Φ (right, the geopotential!) Rossby wave fields. Top row: regular grid with a fixed 1 degree spacing in both λ and ϕ
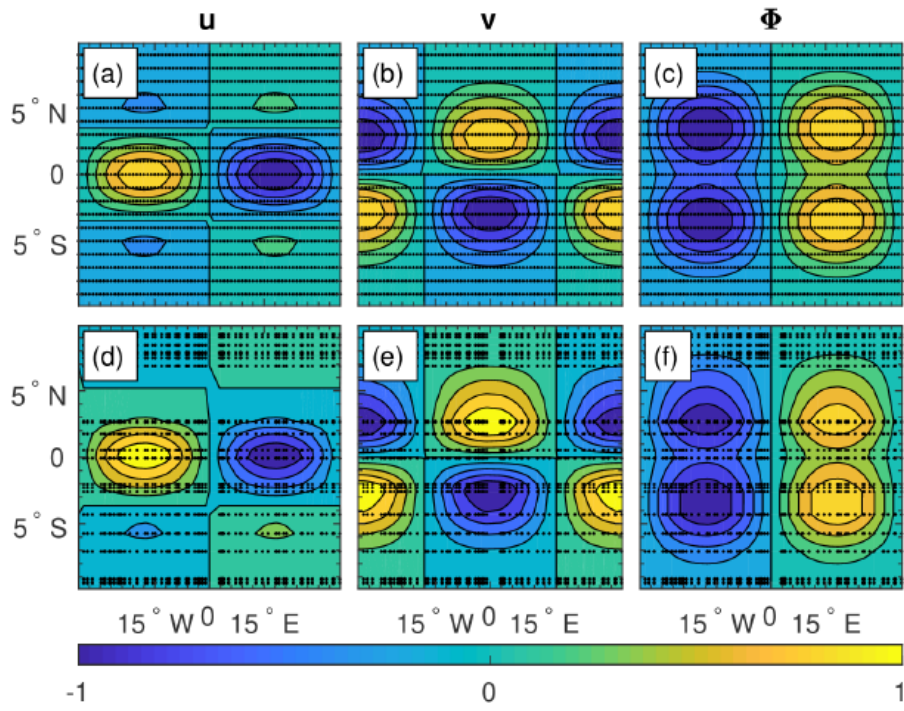
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Fig. 1.

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