

Referee Comment:

The authors have addressed most of my concerns through this revision, except for the last point. It is not merely a semantic issue whether one should call this Doppler shift or not, but also (and more importantly) a question that really pertains to the physics. For internal tides, generated over topography (a feature fixed in space, i.e. the source is not moving) and observed at moorings (equally fixed) there would be no change in frequency. The authors mention the "intrinsic frequency" but this is the frequency measured by an observer moving with the mean flow - which has no bearing on the situation described in this paper. (An elementary exposition on this topic can be found in Gerkema et al., J. Phys. Oceanogr. 43, 432-441, 2013)

Authors response:

We were referring to potential effects of *space- and time-varying* background currents. Since we did not actually analyse this aspect and it is not essential to our study, we have removed the passage from the manuscript.

Revised manuscript passage:

Wavelengths were derived from the time-lag phase speeds and the individual periods of the identified IT waves. ~~which can deviate from the fixed harmonic frequencies due to phase modulation by space- and time-varying background currents.~~