

Interactive comment on “On computation of Hough functions” by H. Wang et al.

Anonymous Referee #2

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This paper presents implementation of two numerical methods for computing the eigenvalues and eigenvectors for the Laplace tidal equation, the normalized associated Legendre polynomial expansion and Chebyshev collocation method, which have some advantages over the commonly used unnormalized associated Legendre polynomial expansion method. The authors also show results (Fig 4) that demonstrate how the parity factor in the Chebyshev collocation method affect numerical convergence. A Matlab routine for the Chebyshev method is included in the paper. The implementation is rather straightforward, and the presentation of the paper is clear. I have the following specific comments:

1. Parity factor: It will be helpful if the authors could briefly discuss why the parity factor is dependent on zonal wavenumber.
2. Number of good eigenvalues (page 6 line 21 and Table 1): what are the percentages of good values for these modes using the unnormalized ALP method?

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3. Are the computational costs of the two methods comparable? How do they compare with the unnormalized ALP method?

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