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CORRIGENDUM

A Correction to the Paper "Traps and Snares in Eigenvalue Calculations with Application to Pseudospectral Computations of Ocean Tides in a Basin Bounded by Meridians"

Our previous work [1] contains two errors. First, on p. 17, Eq. (4.7), which is an analytic formula for the eigenvalue s as a function of frequency λ and mode number, is exact and valid even when s is complex-valued, so long as the real part of s is non-positive. The statement that the formula applies only when it gives a real value for s is incorrect.

Second, on p. 18, the second, third, and fourth columns of Tables II and III were inadvertently moved up one row. The corrected and extended tables are presented here.

TABLE II

Comparison of Numerically Computed Eigenvalues s for Tidal Modes on the Sphere with the Predictions of Equatorial Beta-plane for the Fortnightly Tide

Mode no.	β-plane	Spherical	Difference	β-plane	Spherical	Difference
−1	0.173	0.164	−0.0098	—	—	—
0	−0.173			−26.83	−25.99	0.84
1	−0.530	−0.500	0.0301	−26.47	−23.87	2.60
2	−0.897	−0.820	0.0777	−26.10	−21.62	4.48
3	−1.275	−1.236	0.0390	−25.72	−19.22	6.51
4	−1.665	−1.900	−0.2350	−25.34	−16.54	8.80
5	−2.068	−3.085	−1.017	—		

TABLE III

Same as Table II Except That the $\varepsilon = 0$ Approximation (4.7) Is Compared with the Numerical Calculations of s

Mode no.	$\varepsilon = 0$: Eq. 4.7	Spherical	Difference	$\varepsilon = 0$: Eq. 4.7	Spherical	Difference
−1	—	0.164	—	—	—	—
0	0	—	—	−26	−25.99	0.01
1	−0.084	−0.500	−0.416	−23.92	−23.87	0.05
2	−0.276	−0.820	−0.544	−21.72	−21.62	0.10
3	−0.619	−1.236	−0.617	−19.38	−19.22	0.16
4	−1.199	−1.900	−0.701	−16.81	−16.54	0.27
5	−2.169	−3.085	−0.916	−13.83	−13.34	0.49
6	−4.35	−7.21 ± i1.00	Complex	−9.65	Complex	—
7	−6. ± i4.47	−6.21 ± i5.32	−0.21 ± i0.85			
8	−5. ± i6.86	−5.21 ± i7.46	−0.21 ± i0.60			
9	−4. ± i8.60	−4.20 ± i9.12	−0.20 ± i0.52			
10	−3. ± i10.05	−3.20 ± i10.51	−0.20 ± i0.46			
11	−2. ± i11.31	−2.20 ± i11.74	−0.20 ± i0.43			
12	−1. ± i12.45	−1.20 ± i12.85	−0.20 ± i0.40			
13	−0. ± i13.49	−0.202 ± i13.88	−0. ± i0.39			

Thus, the mode whose eigenvalue is $s = -0.500$ should be the $n = 1$ mode (height and east–west velocity are symmetric with respect to the equator) rather than $n = 0$, etc.

None of the figures or other results are affected by these errors. However, on p. 15, there is a typographical error in the omission of **a** from the right side of (3.11), which should read

$$\mathbf{Aa} = E\mathbf{Ba}.$$

ACKNOWLEDGMENT

We thank Charles Sozou [2] for finding these mistakes, and William O'Connor for useful suggestions.

REFERENCES

1. J. P. Boyd, Traps and snares in eigenvalue calculations with application to pseudospectral computations of ocean tides in a basin bounded by meridians, *J. Comput. Phys.* **126,** 11 (1996).
2. C. Sozou, On eigenwavenumbers of Laplace's tidal equations for oceans bounded by meridians, *Geophys. J.* [In press]

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