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# Equatorial Wave Attractors and Inertial Oscillations

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Stratification and rotation, both essential elements of geophysical fluids like ocean and atmosphere, impose a strong constraint on the internal waves supported by them. This constraint pertains to the fixed angle of propagation with which they propagate obliquely through the fluid domain. The consequence of this constraint is that such wave systems do not possess discrete eigenmodes, but rather lead to the wave approaching certain spatially confined limit cycles, called wave attractors. It is argued that in the equatorial zone meridionally propagating waves are always steered towards such wave attractors. A subclass of these is presented by the trapping of the waves at the bottom near the latitude where these waves are perceived as ‘inertial oscillations’, a well-known feature in any ocean observation record.

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