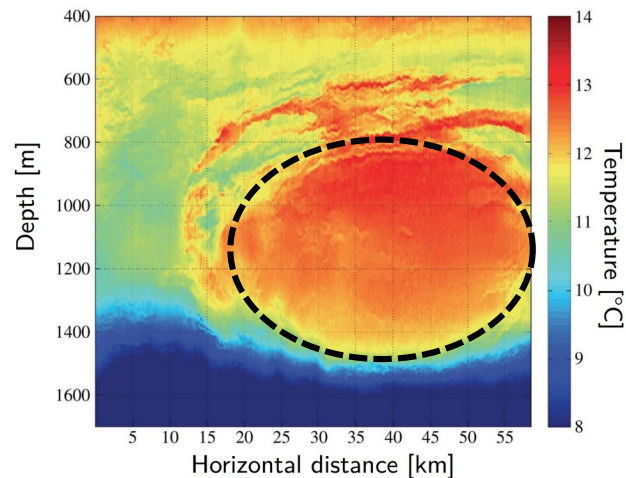


INERTIA-GRAVITY WAVES, A CANONICAL EXAMPLE OF NONLINEAR EIGENVALUE PROBLEMS

Jérémie Vidal & Yves Colin de Verdière

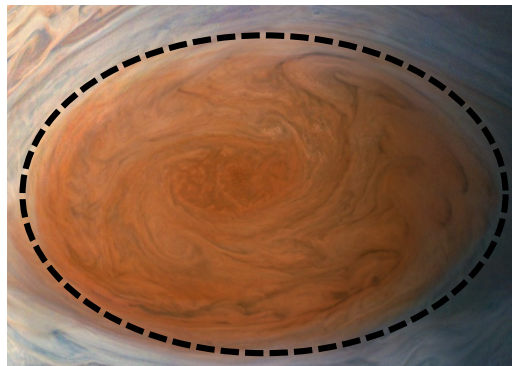
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(GEO)PHYSICAL CONTEXT



Meddy

Jovian vortices



METHODS

$$(-\omega^2 + \omega \mathcal{A} + \mathcal{B}) u = 0$$

- Numerics
- Microlocal analysis
- Differential geometry

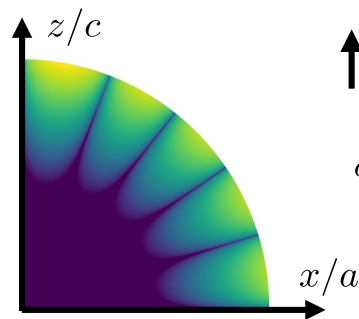
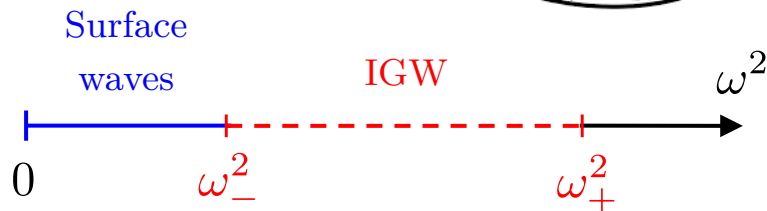
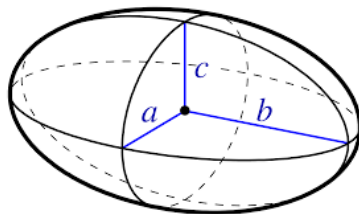


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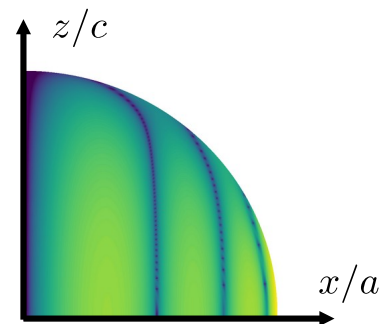
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FIRST RESULTS



↑ Ω ↓ g

$c/a = 0.1$



Vidal & Colin de Verdière, 2024, *Proc. R. Soc. A*, 20230789, [arXiv:2402.10749](https://arxiv.org/abs/2402.10749)

Colin de Verdière & Vidal, 2024, *Submitted*, [arXiv:2305.01369](https://arxiv.org/abs/2305.01369)

Colin de Verdière & Vidal, 2024, *Submitted*, [arXiv:2402.12992](https://arxiv.org/abs/2402.12992)

WORKS