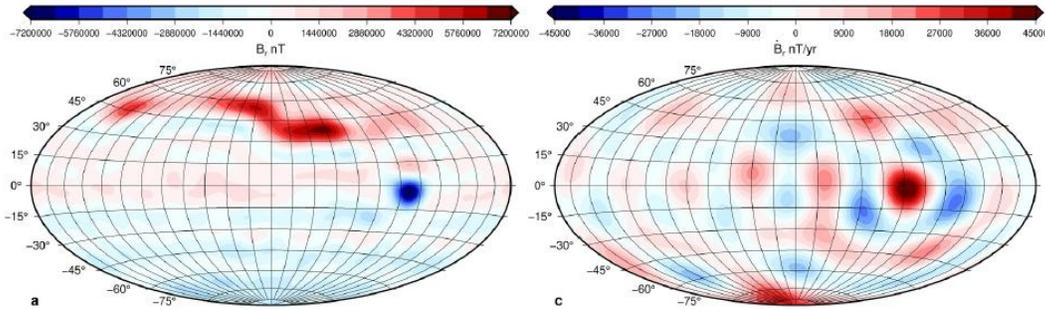
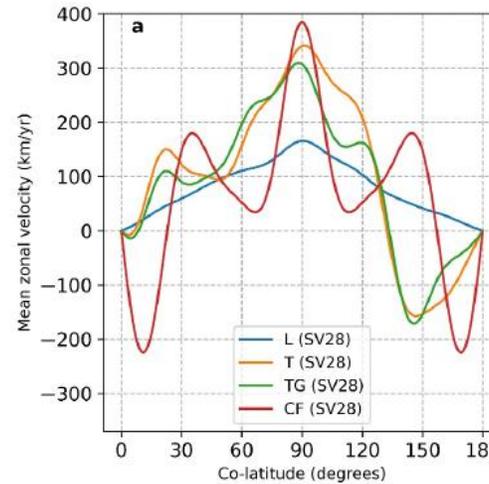


Fluid Flow at the Top of Jupiter's Dynamo Region. Sharan, S., Pais, M. A., **Amit, H., Langlais, B.**, *JGR*, 2025.

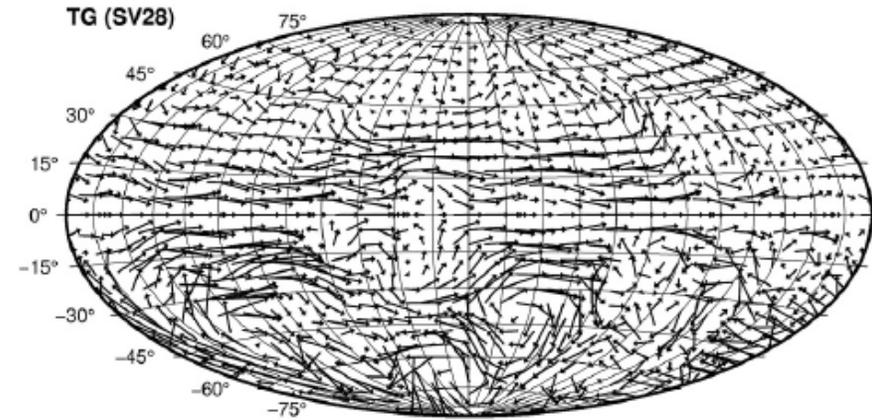
Fluid flow at Jupiter's interior induces temporal changes in the magnetic field => Use **observed SV** to infer the **flow** at the **top of the dynamo region**.



Radial magnetic field (left) and its SV (right) at  $0.83R_J$ ,  $0.8$  based on Juno measurements (Sharan et al., 2022).



Zonal velocity profiles for 4 flow assumptions.



TG global flow (top) and zoom-in to the large positive patch region (bottom).

Is it possible to invert for the flow at Jupiter's interior?

Necessary conditions:

- Sharp **transition** from **low to high electrical conductivity** (to downward project the field).
- **Zero radial flow** (assumed in the induction equation formalism).

Both **hold** at **Earth's CMB**. Hold for Jupiter **if** electrical conductivity transition (French et al., 2012) coincides with the top stratified layer (Wolff et al., 2025).

