

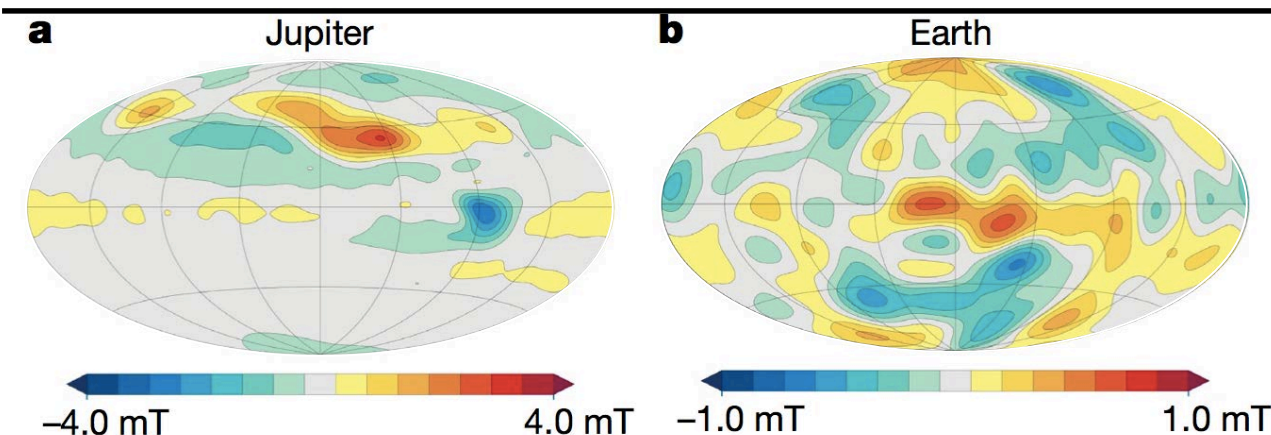


A COMPLEX DYNAMO INFERRED FROM THE HEMISPHERIC DICHOTOMY OF JUPITER'S MAGNETIC FIELD

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- Juno mapped **Jupiter's magnetic field** at depth, and found **large hemispheric differences**
- Existing dynamo models cannot explain these results
- We propose mechanisms for how **Jupiter's interior structure could explain the field:**
 1. Helium rain
 2. Conductivity in the molecular hydrogen region
 3. Core dissolution ("fuzzy core") → multi-layer metallic hydrogen region
Inner layer: stably stratified OR convecting independently
- **MAG data can provide useful constraints on gas giant interiors**



Non-dipolar Br field

Left: Jupiter, 0.9 RJ

Right: Earth, CMB

