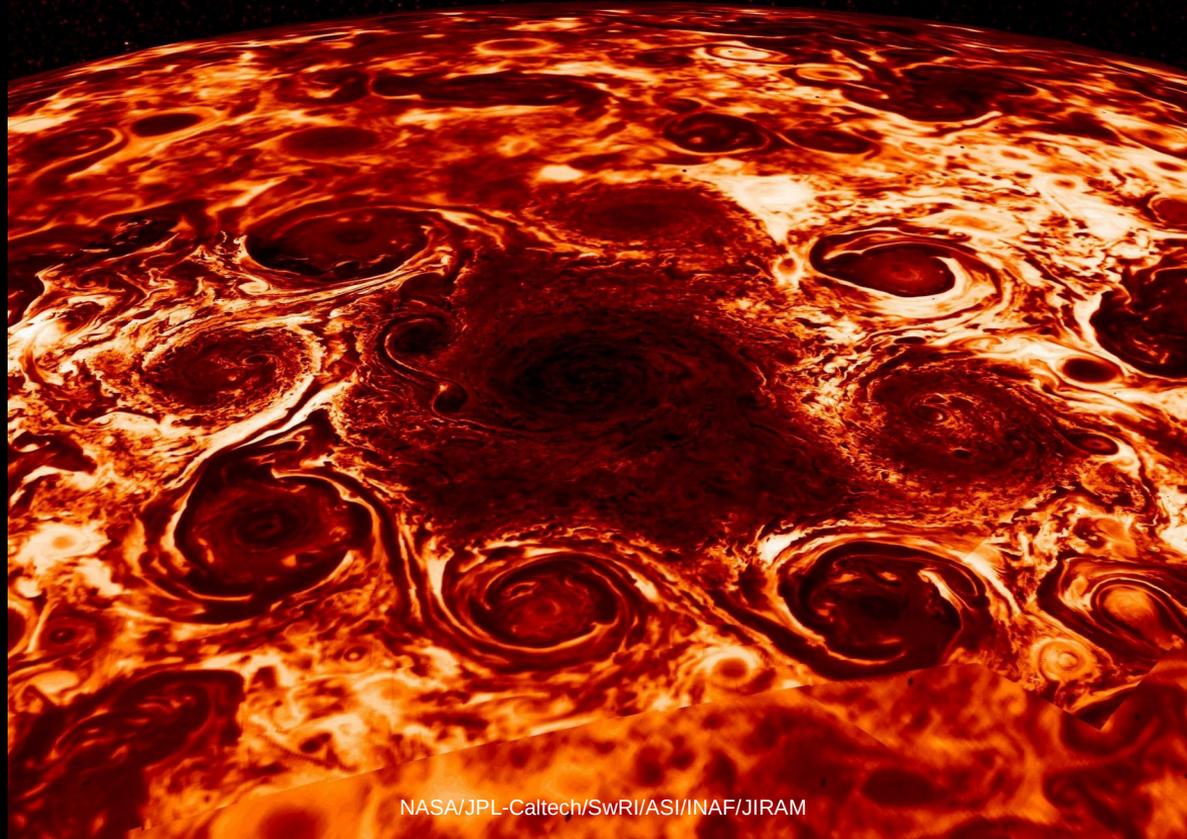


Experimental And Numerical Study Of The Stability Of Cyclone Clusters At Jupiter Poles

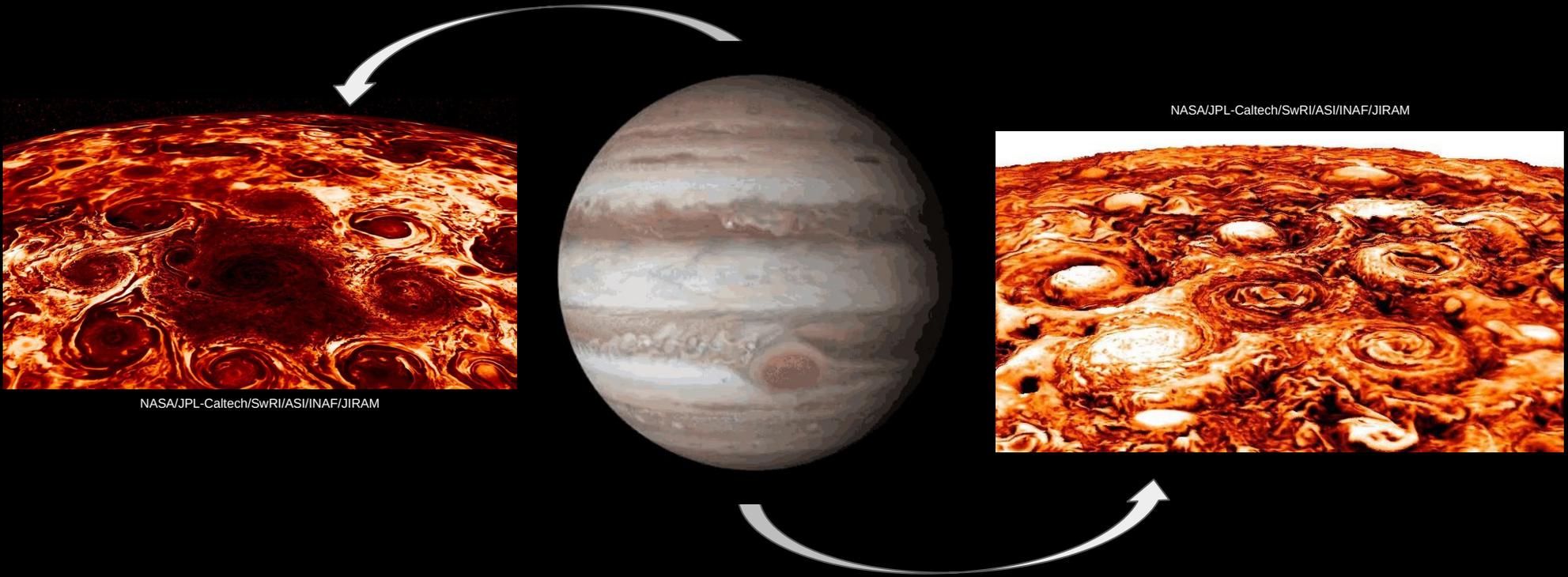


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Clusters of cyclones at the poles



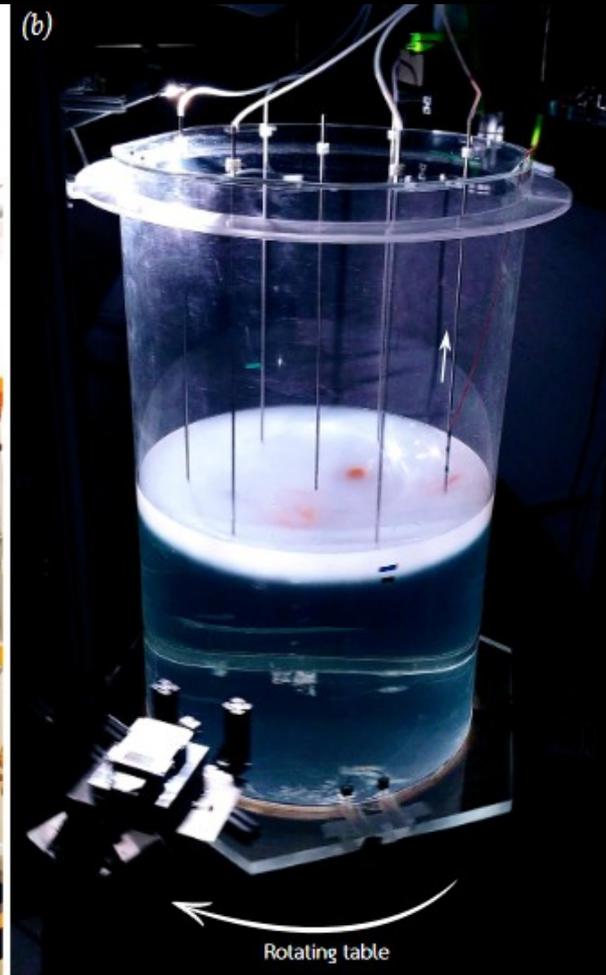
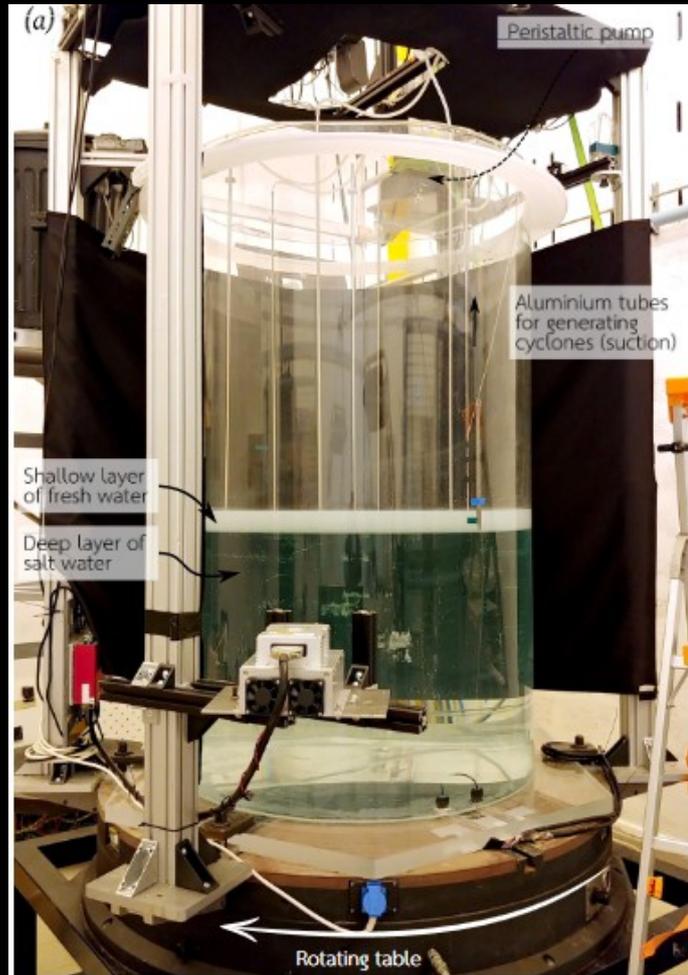
Images from the JUNO mission 2017

Question

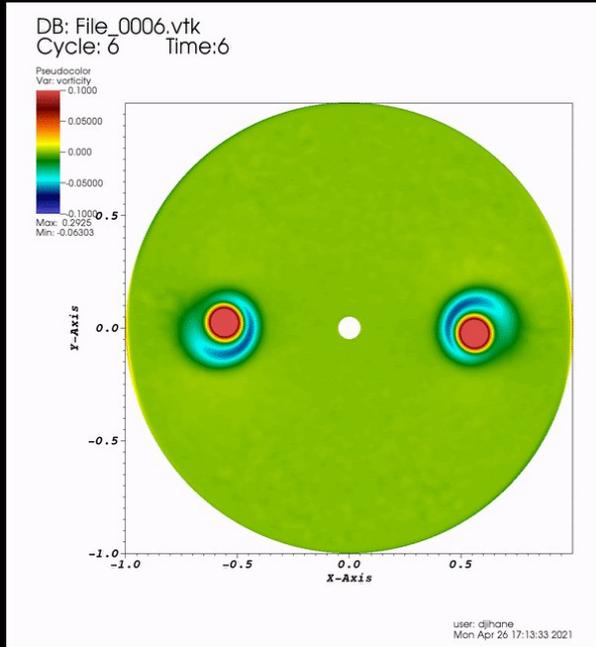
Under which condition do cyclonic clusters form around the pole ?

Is it possible to build an experimental analogue to Jupiter's pole ?

Experimental set-up



Numerical model



Initial condition for the vorticity of cyclones

$$\omega(r) = \omega_m \left[2 - \left(\frac{r}{r_m} \right)^b \right] \exp \left[\frac{1}{b} \left(1 - \left(\frac{r}{r_m} \right)^b \right) \right]$$

