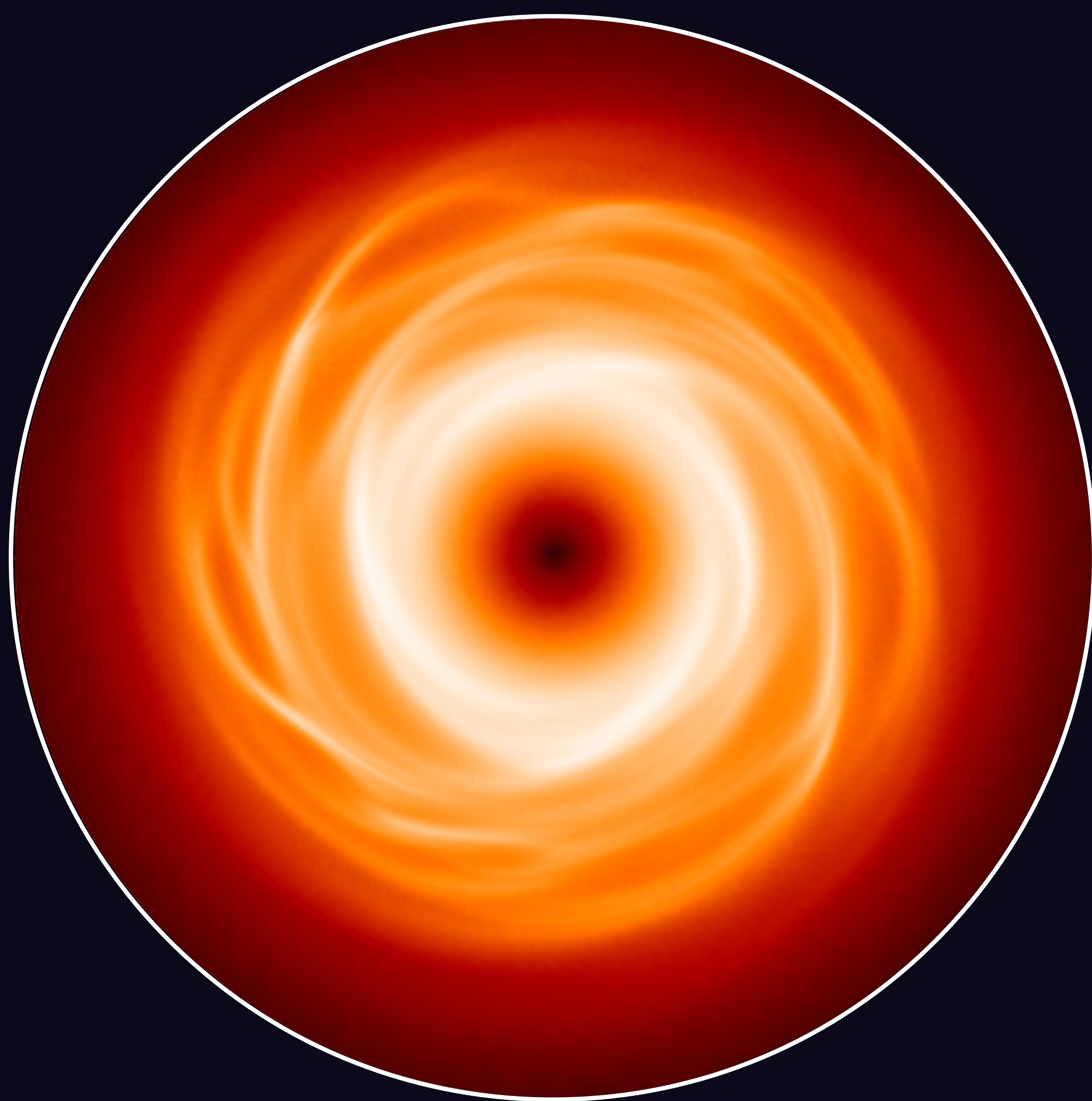


# SUPPRESSING GRAVITATIONAL INSTABILITIES IN SELF-GRAVITATING PROTOPLANETARY DISCS

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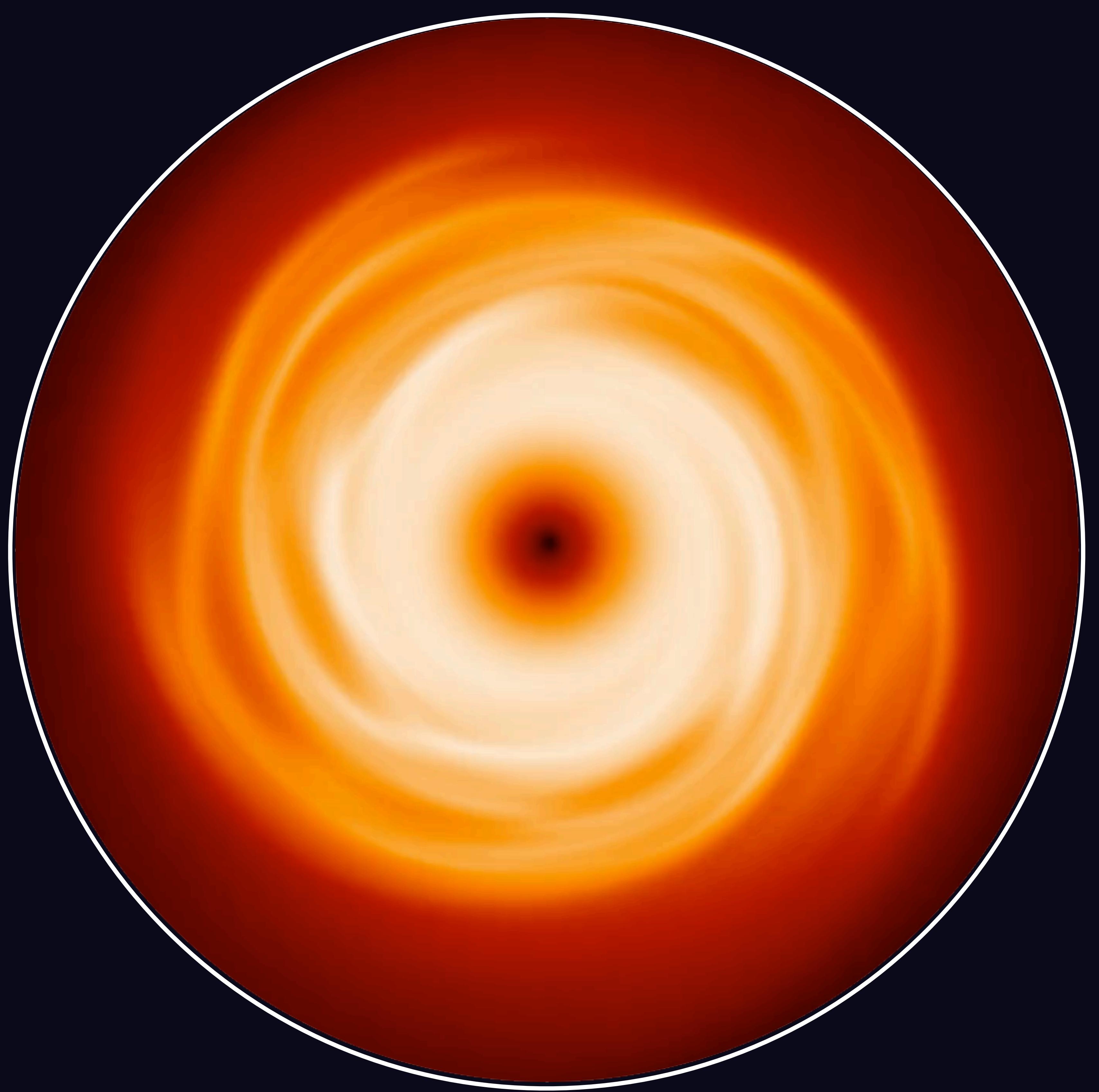
Scan or click [here](#) for more details with animations!



Going from a gravitationally unstable disc to a gravitationally stable disc by

Warping the Disc

Introducing a  $3M_{Jup}$  Planet



Spiral structures due to gravitational instabilities are suppressed yielding an axisymmetric disc