Dear authors,

Thanks for submitting the paper to NPG and considering all the suggestions/modifications requested by the reviewers. In my opinion, the paper has improved a lot after the second revision.

I believe the paper merits for publication in NPG.

Thanks,

Vicente Perez-Munuzuri

Dear Vicente, we are excited to have our paper accepted for publication in NPG. In the final version, we have implemented 2 small edits in response to reviewers' final comments. The description of the edits is below. Best regards. ~Irina

Additional private note (visible to authors and reviewers only):

Both reviewers suggested couple of technical corrections. Please, if possible, try to include them;

We have included 2 technical corrections (please see below) in response to reviewers' comments.

Reviewer 2

I only have one final comment: I think that the authors could highlight the scaling argument in the manuscript text too. Specifically, when I asked "line 474: If these are non-dimensional units, they seem like enormous(?) particles, at 0.1% of the size of the eddy?? Or how does the scaling od d work?", their response "The reviewer is correct, in dimensional units, our parameters correspond to a 1 mm (or 0.5 mm in some simulations) particle in a rotating cylinder with a diameter of 1 m." should be made explicit in the manuscript, to highlight to readers that this really is a 'tabletop' version of an eddy.

In the final version of the paper, we now explicitly state in the caption for Table 1 that "In dimensional units, our parameters correspond to a 1 mm (or 0.5 mm in some simulations) particle in a rotating cylinder with a diameter of 1 m."

Reviewer 1

Only one final comment on posing the MR in a rotating frame. Simply go to the original MR83 paper. You'll see that everything comes from:

m_p \dot v_p = m_p g + \oint_S \sigma\cdot n dS

where \sigma is the stress tensor. Write this in a rotating frame and accordingly do the same in the NS equation.

In the final version of the paper, we included a sentence referring back to the original Maxey and Riley (1983) paper right after writing down the general expression for Q: "This result could have been anticipated from the fact that in the rest frame of the original Maxey-Riley equation, the vorticity and the absolute vorticity are the same."