

Supplemental material

Catastrophic phase inversion in high-Reynolds number turbulent Taylor–Couette flow

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Example images

For our volume fraction sweep for decreasing α we have imaged the flow using a camera continuously using a Lumenera LM165 camera which has a $1392 \text{ px} \times 1040 \text{ px}$ resolution and a $6.45 \mu\text{m}$ pixel size. We show two digitally enhanced (multiplication and offset of brightness values) snapshots that exemplify typical cases, the contrast is very poor due to relatively similar refractive indices and because both liquids are transparent, see Fig. S 1. We overlay the example snapshots with the detected the drops using dashed red circles.

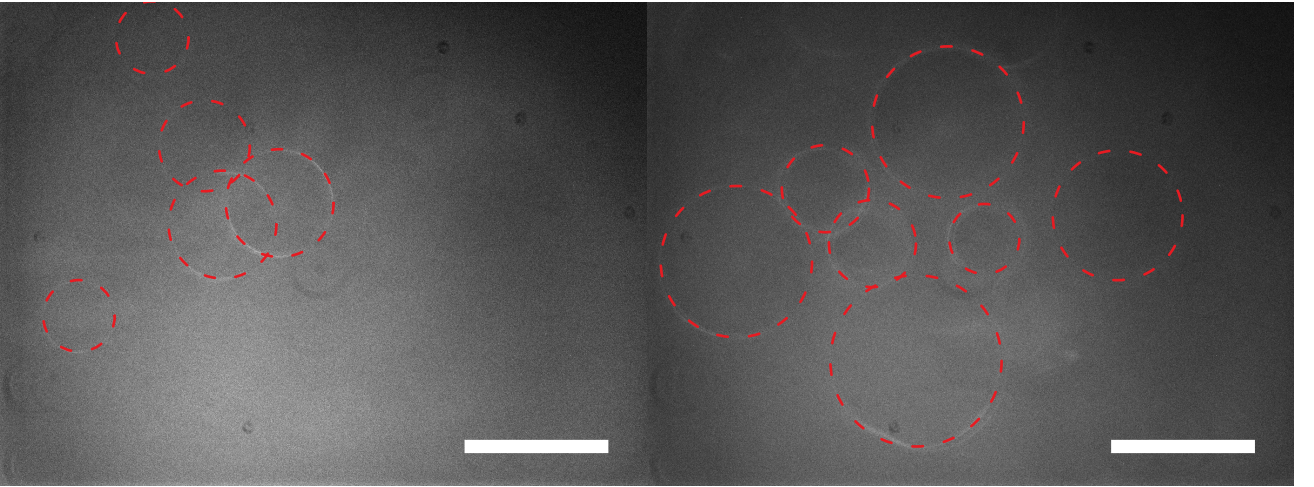


Figure S 1: Example of digitally enhanced snapshots and overlaid dashed circles to highlight the droplets. (Left) example image for $\alpha = 51.1\%$, and (Right) $\alpha = 43.9\%$. The scale bar has a size of $100 \mu\text{m}$. Data belongs to the dashed curve of Fig. 3 and the data of Fig. 4.