

Abstract Submitted  
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**Lagrangian particle tracking in strained turbulence** DIMITRY IVANOV, RÓBERT GRÖNQVIST, Reykjavik University, CHUNG-MIN LEE, California State University at Long Beach, ÁRMANN GYLFASSON, Reykjavik University — We present initial results from experimental investigations of axis-symmetrically strained turbulent flow. Our focus is on the influence of the straining on the motions of passive and inertial particles. The results are compared with existing numerical and experimental data, and we seek to emphasize the effects of the strain geometry and strain rate on the particle behaviour. Eulerian, PIV, flow field results are also presented. We furthermore present a new approach for the analysis and processing of particle tracks and discuss our experimental errors in detail.

Dimitry Ivanov  
Reykjavik University

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