Abstract Submitted
for the DFD14 Meeting of
The American Physical Society

Properties of Streamline Segments in Turbulent Channel Flows with Wavy Walls FABIAN HENNIG, JONAS BOSCHUNG, NORBERT PETERS, RWTH Aachen University — We investigate the turbulent velocity field by means of instantaneous streamlines. The streamlines are partitioned into segments and decompose the velocity field in a non-arbitrary way. We conducted direct numerical simulations of a channel flow with one wavy and one plane wall. The results have been validated against DNS and experimental data from literature. Based on the DNS we investigate the properties of streamlines and streamline segments in detail.

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Date submitted: 31 Jul 2014 Electronic form version 1.4