

Abstract Submitted  
for the DFD19 Meeting of  
The American Physical Society

**2019 MRV Challenge: Mayo Clinic Results<sup>1</sup>** DANIEL BORUP, Mayo Clinic — This presentation is part of the 2019 MRV Challenge focus session. The results presented were obtained on a Philips 3T Elition X scanner. The flow geometry consisted of a U-bend with square cross section. The flow was fully turbulent with a bulk Reynolds number of 15,000. The flow loop was assembled and operated as described in the MRV Challenge instructions. This presentation will focus on details of the measurement including the hardware, acquisition, and reconstruction method. Particular attention will be given to the choice of scan parameters and pulse sequence used to obtain data. The results from standard 3D Cartesian-trajectory imaging will be presented as a baseline, while data obtained in a shorter time using a “spiral readout” trajectory will be shown for comparison. Time-series data in 2D planes in the bend will also be presented to highlight any observations regarding the flow unsteadiness. The measurement uncertainties will also be presented.

<sup>1</sup>Research Support from Philips Healthcare

Daniel Borup  
Mayo Clinic

Date submitted: 30 Jul 2019

Electronic form version 1.4