

Abstract Submitted  
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**Analysis of an Optimized MLOS Tomographic Reconstruction Algorithm and Comparison to the MART Reconstruction Algorithm** RODERICK LA FOY, PAVLOS VLACHOS, Virginia Tech — An optimally designed MLOS tomographic reconstruction algorithm for use in 3D PIV and PTV applications is analyzed. Using a set of optimized reconstruction parameters, the reconstructions produced by the MLOS algorithm are shown to be comparable to reconstructions produced by the MART algorithm for a range of camera geometries, camera numbers, and particle seeding densities. The resultant velocity field error calculated using PIV and PTV algorithms is further minimized by applying both pre and post processing to the reconstructed data sets.

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