

3D Accelerations of a Subsonic Jet using Four-Pulse Shake-The-Box

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ABSTRACT

Three-dimensional (3D) Lagrangian Particle Tracking (LPT) was performed using the Shake-The-Box (STB) algorithm on a subsonic round jet flow at Mach 0.845. The STB technique for four-pulse data was employed to reconstruct particle tracks along the four-pulse sequences providing highly resolved 3D flow velocity and material acceleration data. A description of the experimental methodology is given followed by instantaneous accelerations and averaged flow statistics.