

Abstract Submitted  
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**Variable-Density Co-Flowing Jet Simulations with BHR DANIEL**

M. ISRAEL, Los Alamos National Laboratory — Recent experiments by the Extreme Fluids team at Los Alamos National Laboratory have examined a jet of SF<sub>6</sub> injected into co-flowing air. The experiment is designed to acquire detailed diagnostics for comparison to turbulence models. Simultaneous PIV/PLIF is used to measure the Reynolds stress and velocity-density correlations. In the current work, the BHR RANS model is being implemented in an incompressible variable-density code, and compared to the experimental results. Since the jet is not self-similar, both due to co-flow and variable density effects, careful attention is paid to the role of inflow conditions. Also, some multi-jet configurations are explored.

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