



Measurement of Initial Conditions at Nozzle Exit of High Speed Jets

By -

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 22 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. The time averaged and unsteady density fields close to the nozzle exit ($0.1 \leq x/D \leq 2$, x : downstream distance, D : jet diameter) of unheated free jets at Mach numbers of 0.95, 1.4, and 1.8 were measured using a molecular Rayleigh scattering based technique. The initial thickness of shear layer and its linear growth rate were determined from time-averaged density survey and a modeling process, which utilized the Crocco-Busemann equation to relate density profiles to velocity profiles. The model also corrected for the smearing effect caused by a relatively long probe length in the measured density data. The calculated shear layer thickness was further verified from a limited hot-wire measurement. Density fluctuations spectra, measured using a two-Photomultiplier-tube technique, were used to determine evolution of turbulent fluctuations in various Strouhal frequency bands. For this purpose spectra were obtained from a large number of points inside the flow; and at every axial station spectral data from all radial positions were integrated. The radially-integrated fluctuation data show an exponential growth with downstream distance and an eventual...



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This book is definitely not straightforward to get started on studying but extremely exciting to read. It is really simplistic but shocks in the 50 percent of the ebook. Once you begin to read the book, it is extremely difficult to leave it before concluding.

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This publication is amazing. It is definitely basic but shocks in the fifty percent of your publication. You won't feel monotony at anytime of your own time (that's what catalogues are for concerning if you question me).

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