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EXPERIMENTAL INVESTIGATION OF A FLOW AROUND A SPHERE

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ABSTRACT

This paper presents the experimental results for the flow around a sphere: a smooth sphere in flow with low inlet turbulence, a sphere with trip wire, and a sphere in flow with high free stream turbulence, at subcritical Reynolds number. The mean velocity field and the turbulence quantities are obtained using laser-Doppler anemometry. Comparison of velocity field and turbulence characteristics for different flow configuration are given.

KEYWORDS

sphere, turbulence, laser-Doppler anemometry, grid, trip wire

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