

Abstract Submitted
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Analysis of wake structure downstream of rough surface using volumetric 3-D measurement WING LAI, TSI Fluid Mechanics Group, JOSEPH SHAKAL, U of Wisconsin River Fall — Wake structures downstream of rough surface were analyzed by a 3-D volumetric image based measurement system. The wake structure was shown to have a direct correlation to the roughness of the surface, with the wake deviate from the boundary layer drastically for a very rough surface. A number of rough surfaces were tested to show the various wake formations due to various degrees of roughness. The 3-D volumetric system was employed for the measurement to allow the complete 3-D wake structure to be measured. Such 3-D results allowed instantaneous understanding of the roughness effect to the surrounding flows.

Wing Lai
TSI Fluid Mechanics Group

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