Abstract Submitted
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Turbulence measurements in a commercial steel pipe in the smooth to fully rough regime[1] RICHARD PEPE, ALEXANDER SMITS, Princeton University — Fully developed turbulent flow in a commercially rough pipe is studied using a crossed hot-wire probe. Streamwise and wall- normal turbulence components are obtained over a Reynolds number range from 1.1×10^5 to 9.8×10^6, covering the smooth to fully rough regime. Inner and outer scaling are applied to the turbulence intensity and spectra. The results are evaluated in terms of Perry's attached eddy model prediction and Townsend's 'inactive' and 'active' motions.

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