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Abstract for an Invited Paper  
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**Otto LaPorte Lecture: Experiments in High Reynolds Number Flows<sup>1</sup>**

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To attain a very large range of Reynolds numbers in the laboratory, it is convenient to use high-pressure air. We have made extensive use of this approach to study the behavior of full-developed pipe flow, turbulent boundary layers, and the wakes downstream of bodies-of-revolution. I will summarize some of the major results obtained for the pipe and boundary layer, including the scaling of the mean velocity profile, the streamwise turbulence intensity, and the spectra. I will also discuss some present and future directions of this research, which largely focus on high Reynolds number non-canonical flows.

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