

Abstract Submitted
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Experimental evidence of Vortex-Induced Vibration in cylinders at sub-critical Reynolds numbers¹ PIETER BOERSMA, JONATHAN ROTHSTEIN, YAHYA MODARRES-SADEGHI, University of Massachusetts Amherst — Shedding of vortices can be observed in the wake of a cylinder at Reynolds numbers larger than 47. Recent numerical simulations and theoretical work, however, have shown that it is possible to observe Vortex Induced Vibration (VIV) at sub-critical Reynolds numbers. i.e., Reynolds numbers smaller than 47. VIV has been observed numerically at Reynolds numbers as low as 22. Here we show the first experimental evidence of VIV at subcritical Reynolds number. We discuss similarities and differences between the VIV response at sub-critical Reynolds number and at Reynolds numbers larger than 47.

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