Abstract Submitted
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Flow past an axially aligned spinning cylinder: Experimental Study[1] PASQUALE CARLUCCI, LIAM BUCKLEY, IGBAL MEHMEDAGIC, DONALD CARLUCCI, U. S. Army ARDEC, Picatinny Arsenal, NJ, SIVA THANGAM, Stevens Institute of Technology, NJ — Experimental investigation of flow past a spinning cylinder is presented in the context of its application and relevance to flow past projectiles. A subsonic wind tunnel is used to perform experiments on the flow past a spinning cylinder that is mounted on a forward sting and oriented such that its axis of rotation is aligned with the mean flow. The experiments cover a Reynolds number of range of up to 45000 and rotation numbers of up to 2 (based on cylinder diameter). Time-averaged mean flow and turbulence profiles in the wake flow are presented with and without spin along with comparison to published experimental data.

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