

Abstract Submitted
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Gravitationally forced hyperbolic waves in a horizontal rotating cylinder MATS NIGAM, Noss AB — A thin layer of fluid, flowing axially along the inner surface of a horizontal rotating cylinder is subjected to a periodic forcing due to the gravitational acceleration. Since the frequency of the forcing lies within the critical range $([0, 2\Omega])$ for which the inviscid problem is of a hyperbolic nature, the solution which in this case may be obtained on closed form displays a characteristic “Mach wave”-like behavior.

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