Abstract Submitted
for the DFD08 Meeting of
The American Physical Society

Gravitationally forced surface waves in a rotating cylinder MATS NIGAM, Noss — 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.

Mats Nigam
Noss

Date submitted: 11 Jul 2008 Electronic form version 1.4