

INSTABILITY OF VISCOUS FLOWS OVER A SHRINKING SHEET

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Abstract:

We prove instability of a part of a branch of viscous incompressible fluid flows induced by a shrinking sheet. These flows are exact solutions of the Navier-Stokes equation.

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Here is the whole [article](#) in the PDF format.

This paper is presenting perhaps the first proof of instability of an exact solution of the Navier-Stokes equations. The exact solution was obtained in a highly cited paper:

M. Miklavčič and C.Y. Wang, [Viscous flow due to a shrinking sheet](#), *Quart. Appl. Math.* **64**(2006), 283-290.