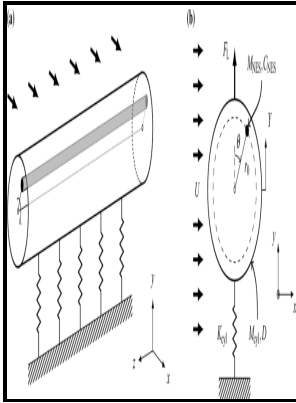# Three-dimensional flow past a rapidly rotating circular cylinder

Institute for Computer Applications in Science and Engineering - Three

Description: -

-
Three dimensional flow
Rotating cylindersthree-dimensional flow past a rapidly rotating circular cylinder
-three-dimensional flow past a rapidly rotating circular cylinder
Notes: Includes bibliographical references: p. 14.
This edition was published in 1993

Filesize: 30.210 MB

Tags: #Large

The flow past a circular cylinder in a rotating frame

Smith, Steady laminar forced convection from a circular cylinder at low Reynolds numbers, Physics of Fluids, 11 1968 933—940. Saffman, The Flow Induced by the Transverse Motion of a Thin Disk in Its Own Plane Through a Contained Rapidly Rotating Viscous Fluid, J.

Three

Greenspan, The Theory of Rotating Fluids Cambridge University Press, New York 1968.

ShieldSquare

Tong, Archival correlations for average heat transfer coefficients for noncircular and circular cylinders and for spheres in cross-flow, International Journal of Heat and Mass Transfer, 47 2004 5285—5296. He has experience in modeling and simulation of non-linear problems in fluid mechanics and heat transfer. J Mech Sci Technol 29, 1781—1797 2015.

Numerical Study of the Laminar Flow Past a Rotating Square Cylinder at Low Spinning Rates

However, significant differences can be seen at higher rotation. The rotating circular cylinder also shows likewise degeneration of Kármán VS at some critical rotational speed. The non-dimensional rotation rate, α is employed upto a maximum value of 5.

Large

Uhlenbusch, Laminare Grenzschichten an zylindrischen Körpern in der Magnetohydrodynamik, Z. There he worked under the supervision of Dr. Badr, Forced convection from a rotationally oscillating cylinder placed in a uniform stream, International Journal of Heat and Mass Transfer, 43 2000 3093—3104.

ShieldSquare

A two-dimensional 2D finite volume based computation is performed in this regard to simulate the laminar fluid flow around a rotating square cylinder in an unconfined medium. Henderson, Three dimensional floquet stability analysis of the wake of the circular cylinder, Journal of Fluid Mechanics, 322 1996 215—241.

Numerical Study of the Laminar Flow Past a Rotating Square Cylinder at Low Spinning Rates

Uniform heat flux UHF and constant wall temperature CWT boundary conditions have been considered, separately, for the range of afore mentioned parameters.

Related Books

- [Cock and Anchor](#)
- [Influence of dietary manipulations on antioscidant and trace element status in the Syrian hamster.](#)
- [Makers of America. - Editor: Wayne Moquin. General editors: Mortimer J. Adler and Charles Van Doren](#)
- [Benjamin Frost, a Texan from Tennessee](#)
- [Obrabotka metallov davleniem](#)