Project Title: 3D – NUMERICAL SIMULATION OF FLOW AROUND A CYLINDER BY FLUENT

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Project Description: One of the fundamental problems of fluid mechanics, flow around a cylinder, is studied in the project. The aim of the study is to see the differences in 2D and 3D simulation, comparing the results of different turbulent models offered in FLUENT and comparing the numerical results by theoretical and experimental values (experiments have been carried out by one of the group members, Gokhan KIRKIL). Investigating the flow field and Karman vortices behind the cylinder, capabilities of FLUENT will be explored, and a sound insight to this basic problem will be achieved.

2D simulation
3D simulation