FLUENT - User Defined Functions

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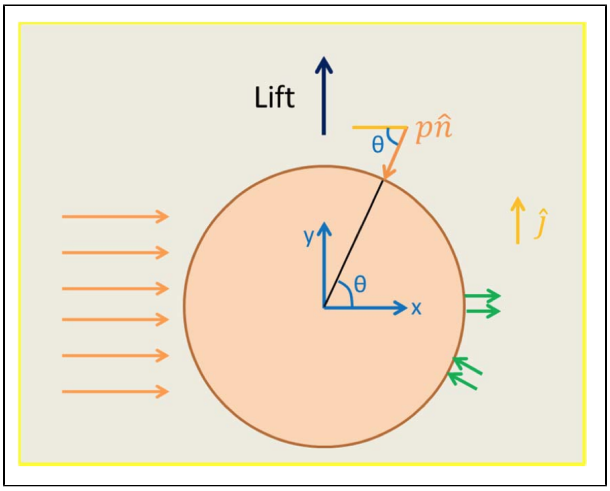
User Defined Functions

Problem Specification



Consider the case of a fluid flowing past a cylinder, as in the steady cylinder case, with a Reynolds number of 20.

By altering the cylinder wall boundaries to include sucking and blowing jets, separation can be eliminated and the lift force on the cylinder can be increased.

The lift L is specified as (neglecting viscous shear):

$$dl_{II}$$

Fluent can only integrate for the lift coefficient over sections specified as walls; in this problem some sections of the cylinder wall will be specified as velocity inflows or outflows and not as walls. User-defined functions (UDFs) will be used to integrate over the entire cylinder for the lift coefficient. User-defined functions are C functions used to enhance features of the FLUENT solver.

Go to Step 1: Pre-Analysis & Startup

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