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Influence of spanwise no-slip boundary conditions on the flow around a cylinder

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Highlights

- We focus on the flow around a circular cylinder with no-slip spanwise boundary conditions.
- We show that for long cylinders, there is a large region with 2-D flow statistics in the middle.
- Despite of the 2-D flow statistics, the entire fluid volume is influenced by the no-slip wall.
- The shear layer instabilities observed in the periodic case are not present with no-slip walls.

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