

# Semi-cylindrical building in uniform airflow

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January 2025

## **Abstract**

When studying the velocity field of an ideal incompressible fluid around an obstacle, we pay special attention to symmetric configurations (sphere, cylinder, etc.). Although finding direct elementary solutions is not simple, by analogy with magnetostatics and electrostatics, we can obtain equivalent formal solutions. Through this analogy, the fluid problem can be fully analyzed mathematically, and the method can be extended to a large class of physical phenomena described by Laplace's equation.