

Turbulence – the last frontier of classical physics

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Abstract

When someone sprays perfume at one end of a room and we smell it within seconds, we are experiencing turbulence in action. Or when we experience atmospheric turbulence during a flight! Turns out turbulence in fluid flows is the norm rather than the exception. This phenomenon has fascinated thinkers dating back to Leonardo da Vinci. We will

outline basic elements of our current understanding of turbulence in fluids. We will then proceed to illustrate some manifestations of turbulence in space physics and discuss how much remains to be learnt.