Kelvin — Helmholtz instability in sheared flows of fluids and plasmas

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The paper shows that the Kelvin — Helmholtz instability is a common characteristic of sheared flows of both an ideal fluid and plasma confined in the external magnetic field. The authors prove that the wave equation for eigenmodes in plasma at the hydrodynamic limit corresponds to the Rayleigh equation for ideal fluid. They also analyze the odd and even modes of the instability. A special attention is given to the estimation of some turbulent exchange rates in accordance with the parameters of instability.

Keywords: *Kelvin — Helmholtz instability, Rayleigh equation.*

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