

CHAPTER OVERVIEW

14: Hydrodynamics

- Diffusion equations, random walks, and the Langevin equation are useful for describing transport driven by random thermal forces under equilibrium conditions or not far from equilibrium (the linear response regime).
- Fluid Dynamics and hydrodynamics refer to continuum approaches that allows us to describe non-equilibrium conditions for transport in fluids. Hydrodynamics describes flow and transport of objects through a fluid experiencing resistance or friction.

[14.1: Newtonian Fluids](#)

[14.2: Stokes' Law](#)

[14.3: Laminar and Turbulent Flow](#)

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