

Canonical Theory of Dissipative Systems

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1. Entropy Production in Transport Phenomena
— Unification of Onsager, Kubo, Prigogine & Zubarev theories —
2. Introducing a canonical form
$$J_{\text{canon}}(t) = e^{\eta(t)}$$
; $\eta(t)$ entropy function
to describe the current and entropy production
3. To construct the variational principle of dissipative dynamics — dissipative Lagrangian
4. Relaxation and entropy change
5. Entropy decrease in order formation
— Scaling theory of order formation —
including the inflation mechanism of the universe