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Type: **Oral presentation**

Carnot's Waterfall and the Notions of Power and Energy

Tuesday 1 July 2025 16:10 (20 minutes)

We accept the idea of power of a Force of Nature as it arises from Sadi Carnot's Waterfall Analogy. We show in what sense power is experientially and conceptually primary, and how it can be used for motivating the energy principle (rather than taking power as derived from the concept of energy). We use a macroscopic steady-state model of irreversible thermal engines for demonstrating that Carnot's notion of power cannot be derived from the concept of energy.

Education level

All ages

Physics topic

Thermodynamics and Energy

Research focus

Innovative instructional strategies and pathways

Research method

Other

Organizing preference criteria

Physics topic

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Session Classification: Parallel oral presentations

Track Classification: Thermodynamics & Energy (THERMO)