

Mpemba effect in bistable continuous potentials

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The Mpemba effect is a counterintuitive phenomenon in which an initially hot material cools down faster than an initially warm material.

After the confirmation of this effect in an experiment in 2020, it became a hot subject in non-equilibrium thermodynamics.

In this talk, I will present an exact solution of the heat relaxation of a particle in a one-dimensional double-well potential.

I will also extend this analysis to a particle in a two-dimensional double-well potential, if I have time.

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