

# Kramers' law: Validity, derivations and generalisations

Nils Berglund

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Kramers' law describes the mean transition time of an overdamped Brownian particle between local minima in a potential landscape. We review different approaches that have been followed to obtain a mathematically rigorous proof of this formula. We also discuss some generalisations, and a case in which Kramers' law is not valid. This review is written for both mathematicians and theoretical physicists, and endeavours to link concepts and terminology from both fields.

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