

## Propagator for a Time-Dependent Damped Harmonic Oscillator with a Force Quadratic in Velocity

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**Abstract:** The propagator for a time-dependent damped harmonic oscillator with a force quadratic in velocity is obtained by making a specific coordinate transformation and by using the method of time-dependent invariant.

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**Key words:** force quadratic in velocity, time-dependent damped harmonic oscillator, coordinate transformation, method of time-dependent invariant, propagator

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