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Continuous Monitoring and Feedback Control of a quantum harmonic oscillator

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I review quantum state monitoring and measurement-based feedback control at the example of a particle in a harmonic potential [1]. Feedback can be employed to effectively modify the Hamiltonian, dissipate energy and transfer the system into the ground state while simultaneously compensating the noise introduced by the continuous measurement.

[1] A.Rouillard, A. Reddy, H. Bassa, S. Maharaj, L. Diosi and T. Konrad
Measurement-based Feedback Control of a Quantum System in a Harmonic Potential,
preprint: arXiv:2212.12292,(2022) link: [2212.12292] Measurement-based Feedback Control of a Quantum System in a Harmonic Potential

Apply to be considered for a student ; award (Yes / No)?

N/A

Level for award;(Hons, MSc, PhD, N/A)?

N/A

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