

Quantum Dynamics Simulations of Polariton Spectroscopy

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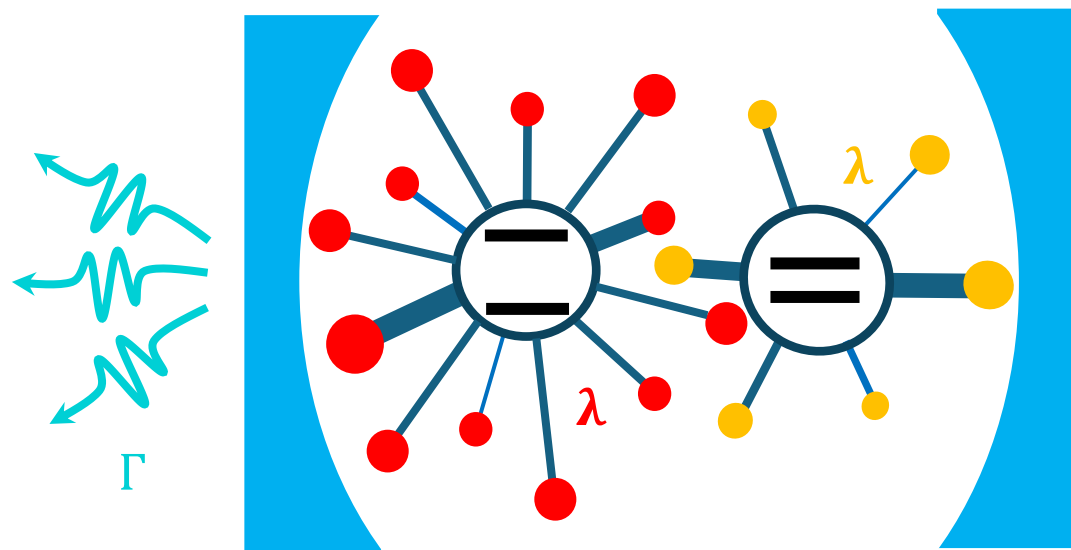
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\mathcal{L} -PLDM Spectroscopy



Non-Markovian

Markovian

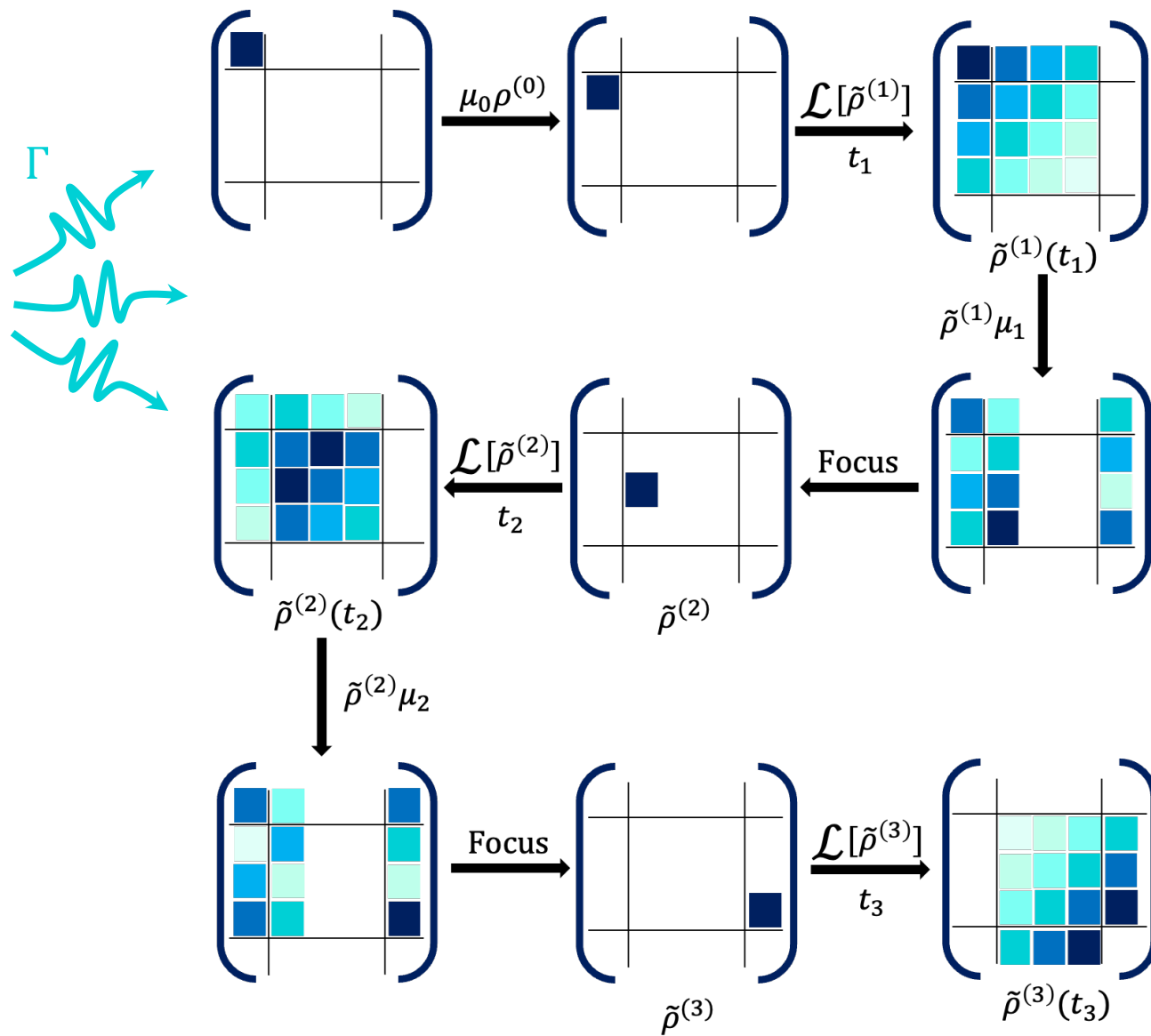
$$\frac{\partial \hat{\rho}_S}{\partial t} = -\frac{i}{\hbar} [\hat{H}, \hat{\rho}_S] + \sum_k \mathcal{L}_{\hat{L}_k} [\hat{\rho}_S]$$

$$\hat{\rho}(t + dt) = e^{\mathcal{L}_{\hat{L}} dt/2} e^{\mathcal{L}_{\hat{H}} dt} e^{\mathcal{L}_{\hat{L}} dt/2} \hat{\rho}(t)$$

Lindblad

PLDM

Lindblad



Spectra of molecules in Cavity

