**Excitation** **energy transfer using real-time path integral methods**

Real-time path integral methods offer a rigorous, fully quantum mechanical approach to the dynamics of many processes in condensed-phase or biological environments and large molecular aggregates. These include the quasi-adiabatic propagator path integral (QuAPI) and its small matrix formulation (SMatPI), which eliminates the need for tensor storage, the modular decomposition (MPI) and the quantum-classical path integral (QCPI). These methods are used to simulate excitation energy transfer (EET) in large molecular aggregates of perylene bisimide and in the photosynthetic light harvesting complex LH2 of purple bacteria.

**A person wearing glasses

Description automatically generated with low confidence**

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