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Coherent transfer in biological systems: a study of the role of environmental noise NAYELI ZUNIGA-HANSEN, MARK S. BYRD, Southern Illinois University Carbondale — We study the effects of environmental noise on quantum mechanical systems, we focus mainly on biological systems in which noise is believed to assist coherent transport of energy. We use error correction methods aimed at avoiding decoherence and dissipation due to coupling to a reservoir, with the purpose of investigating if modifying the coupling to a noisy bath can provide further insight on its effects on transport mechanisms, and propose that this work is carried out experimentally.

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