

Abstract Submitted
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Algorithm that Recovers Hamiltonian Parameters in Imprecisely Characterized Systems¹ HEBAH GODERYA, University of Texas at Austin, WOLFGANG PFAFF, University of Illinois Urbana-Champaign — The field of quantum optimal control has opened doors for quantum technology. In experimental practice, however, the effectiveness of this is often limited by imprecise characterization of the quantum system's parameters. With this algorithm we develop a scheme to recover these parameters. By utilizing open-loop optimization via a gradient-based search, we preform a direct search for uncertain parameters in a given system by a closed-loop search based on experimental feedback. This Letter provides proof of concept and demonstrates the potential in this approach.

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