

Abstract Submitted  
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**An operational approach to indirectly measuring tunneling time**

YUNJIN CHOI, ANDREW JORDAN, University of Rochester — The tunneling time through an arbitrary one-dimensional barrier is investigated using the dwell time operator approach. Since the tunneling time contains a natural post-selection (we only average over particles that successfully tunnel), the tunneling time can be related to the weak value of the dwell time operator. We analyze the situation by considering a specific measurement context containing experimentally observable quantities, since measuring the dwell time operator directly is not strictly achievable in the laboratory. Therefore, we reconstruct the average value of the dwell time operator applying the contextual values formalism [J. Dressel and A. N. Jordan, *Phys. Rev. A* **85**, 022123 (2012)] for generalized measurements based on the Larmor clock [M. Büttiker, *Phys. Rev. B* **27**, 6178 (1983)].

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