

Abstract Submitted  
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**Path-Integral Foundations** KEN WHARTON, San Jose State University — Research in the field of Quantum Foundations often aims to interpret the standard quantum wavefunction (including its dynamics and its probabilistic relationship to observations). However, it is known that all of the predictions of quantum theory can also be recovered using the Feynman Path Integral (FPI), in which the wavefunction need not play any role at all. This raises the possibility of an alternate approach to quantum foundations – “path-integral foundations” – in which it is the FPI that needs an interpretation, not the wavefunction. This talk will summarize the efforts that have already been made in this regard, and will present indications that this is a promising research direction – especially if one is concerned with time-symmetry and/or “realistic” approaches to quantum phenomena.

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