

Abstract Submitted
for the 4CF07 Meeting of
The American Physical Society

Quantum Mechanics as Biconformal Measurement THOMAS WILLIAMS, JAMES WHEELER, Utah State University — Biconformal space has been shown to contain all necessary properties of quantum Mechanics. Using three postulates to define motion and measurement in biconformal space, the standard formulation of quantum mechanics has been derived. Using any of a certain class of complex representations of the conformal group, it has been shown that quantum probabilities naturally arise from the use of a standard of measurement on biconformal space. We investigate the nature of this class of representations in detail to determine what, if anything, makes them the preferred way to think of quantum mechanics on biconformal space.

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Date submitted: 14 Sep 2007

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