

Abstract Submitted
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A New Frontier for the Quantum Measurement Problem: The Humble Cloud Chamber JONATHAN SCHONFELD, Harvard - Smithsonian Center for Astrophysics — We are taught that quantum wavefunctions evolve smoothly until measurements, when they collapse. Making microscopic sense of this contrast is the measurement problem. Analysis of the microphysics underlying cloud chamber track initiation from radioactive decays shows that apparent collapse can be an idealization of a more complex but smooth process. We test this analysis with opportunistic data found in pedagogical video available on the internet. The results suggest a modification to the standard Born probability rule.

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