M A T H E M A T I C A L P H Y S I C S S E M I N A R

Rutgers University
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Recent developments in models of spontaneous wave function collapse

Abstract

Models of spontaneous wave function collapse have been devised in order to provide an observer-free description of quantum phenomena. I will first review collapse models, to show how they achieve this goal. Next, I will present some recent developments in the field, both from the mathematical point of view (we will provide the solution to a recent problem set forward by Weinberg in arXiv:1109.6462), as well as phenomenological (new predictions of these models, which differ from standard quantum predictions).