Title:	A review of Unruh-de witt detector model
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Abstract:	Light-matter interactions are fundamental to the study of physics. Historically, many models have been developed to study these interactions. Our focus is to study one such model, known as the Unruh-DeWitt detector model. However, the model is over-simplified and thus require refinements so as to better mimic the physical scenario. In this thesis, we will study a generalised version of the Unruh-DeWitt detector, in which the center of mass of the atom is treated as a quantised degree of freedom. We study the effect of this general- isation of the Unruh-DeWitt detector on the transition probabilities of an atom interacting with pulsed light. We found that, in a certain parameter regime, the model with quantised center of mass gives us additional information compared to the classical model.
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