

The Renormalized Electron Mass and other Topics in nonrelativistic Quantum Electrodynamics

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Abstract

In this lecture I review recent progress in the mathematical analysis of the spectral theory for nonrelativistic matter interacting with the (UV-regularized) quantized radiation field. My main focus lies on results obtained in joint collaborations with T. Chen, J. Fröhlich, M. Könenberg, A. Pizzo, and I.M. Sigal.