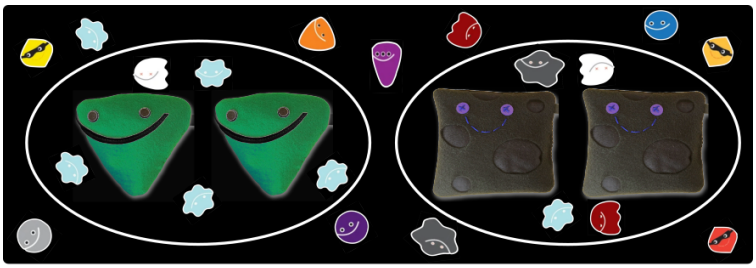

Contribution ID: **7** Type: **not specified**

Non-equilibrium theory of non-relativistic pairs inside an environment

Wednesday 16 June 2021 20:00 (40 minutes)

We derive differential equations from path-integral based non-equilibrium quantum field theory, that cover the dynamics and spectrum of non-relativistic two-body fields for any environment. For concreteness of the two-body fields, we choose the full potential non-relativistic Quantum Electrodynamics Lagrangian in this work. After closing the correlation function hierarchy of these equations and performing consistency checks with previous literature under certain limits, we demonstrate the range of physics applications. This includes Cosmology such as Dark Matter in the primordial plasma, Quarkonia inside a quark gluon plasma, and other phenomena in Condensed or strongly Correlated Matter physics.

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Session Classification: Main program