

Hadrons Physics and Continuum Strong-QCD III

Sunday, 8 November 2009 09:00 (1:00)

Abstract content

Summary

I will provide an introduction to quantum field theory, and a derivation and illustration of the Dyson-Schwinger equations. This approach enables an explanation of the emergent phenomena of confinement and dynamical chiral symmetry breaking, which are fundamental to the nature of the Universe. Their role in hadron physics, the science of the matter that constitutes us all, will be elucidated and connected with quantum chromodynamics. Contemporary challenges and opportunities in hadron physics will be illustrated through the application of Dyson-Schwinger equations to the prediction of real-world experimental observables. I will emphasise the role played by confrontation with data as a means of verifying our understanding of Nature, as opposed to evading it in order to preserve our intellectual freedom.

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