

Baryon spectra and properties from functional methods

Thursday, 13 June 2019 09:00 (35 minutes)

In this talk I will give a general overview on recent results from several groups on the spectrum and properties of baryons as obtained in the framework of Dyson-Schwinger and Bethe-Salpeter equations.

I will discuss the spectrum of light baryons with focus on the comparison with quark model expectations, the impact of dynamical mass generation and explain the importance of relativistic components in the wave functions of baryons.

If time permits I will also discuss selected form factors.

Baryons do also have an impact on the QCD phase diagram at finite temperature and chemical potential. I will briefly explain their influence on the location of the critical end point of QCD.

Recent reviews on these topics can be found in

G. Eichmann, H. Sanchis-Alepuz, R. Williams, R. Alkofer and C. S. Fischer,

Prog. Part. Nucl. Phys. 91 (2016) 1

C. S. Fischer, Prog. Part. Nucl. Phys. 105 (2019) 1

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Session Classification: Plenary Session 1

Track Classification: Baryon structure through meson electroproduction, transition form factors, and time-like form factors