Contribution ID: **87** Type: **Parallel**

Spectral quantities in thermal QCD: a progress report from the FASTSUM collaboration

Wednesday 19 June 2019 09:40 (20 minutes)

In order to study spectral quantities in thermal QCD, the FASTSUM collaboration employs anisotropic lattice simulations with Nf=2+1 flavours of Wilson fermions. Here we discuss our Generation 2 and Generation 2L ensembles, which differ in the pion mass. We focus on observables related to the light quarks and chiral symmetry restoration. Moreover, to prepare for the results to be discussed in the next talk, we examine the basics of mesonic correlation functions in QCD at small but nonzero baryon chemical potential using a Taylor expansion, including an analytical evaluation of the second-order term at very high temperature.

Authors: AARTS, Gert (Swansea University); ALLTON, Chris (Swansea University); DE BONI, Davide (Swansea University); GLESAAEN, Jonas Rylund; HANDS, Simon; JÄGER, Benjamin (Swansea University); KIM, Seyong (Unknown); LOMBARDO, Maria Paola (INFN); NIKOLAEV, Aleksandr (Swansea University); RYAN, Sinead (Trinity College Dublin); SKULLERUD, Jon-Ivar (National University of Ireland Maynooth); WU, Liang-Kai (Jiangsu University)

Presenter: AARTS, Gert (Swansea University)

Session Classification: Nonzero Temperature and Density

Track Classification: Nonzero Temperature and Density