



Contribution ID: 697

Type: Poster

## Self-consistent spectral properties of quarks and mesons in a chiral quark model

*Tuesday, 5 September 2023 17:30 (2h 10m)*

We present a study of the spectral properties of the quark and meson excitations within the Nambu–Jona-Lasinio model. The pertinent spectral functions are obtained by solving self-consistently the Dyson equation for the quark propagator at the one-loop level and the Bethe-Salpeter equation for the quark-antiquark T-matrix, which describes mesons as dynamically generated bound states. The self-consistent solutions are used to calculate the thermodynamic potential and the chiral condensate dependence on the temperature, which shows that the mesonic thermal excitations govern the chiral condensate melting at low temperatures.

### Category

Theory

### Collaboration (if applicable)

Nuclear Physics from Multi-Messenger Mergers

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**Session Classification:** Poster Session

**Track Classification:** QCD at finite density and temperature