

# Thermodynamics of a coupled channel system

*Sunday 25 September 2022 11:40 (20 minutes)*

In this talk I will explore several theoretical issues in applying the S-matrix formulation of statistical mechanics to coupled channel scattering, e.g. dealing with inelasticity, treating overlapping resonances, and studying the influences from dynamical structures like poles and roots on thermal observables. As an application, I will discuss a coupled-channel model describing the  $S=-1$  hyperon system and some ideas for incorporating  $N > 2$ -body scatterings.

**Author:** Dr LO, Pok Man (University of Wrocław)

**Presenter:** Dr LO, Pok Man (University of Wrocław)

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