Higher order thermal corrections to dark matter annihilations processes

Wednesday 9 July 2025 11:30 (30 minutes)

We present results for higher order thermal corrections to both dark matter annihilation into fermion pairs, as well as annihilation along with photon absorption/emission. We show explicitly cancellation of soft and collinear divergences in the thermal theory and calculate the finite remainder. The corrections depend significantly on whether the dark matter particle is assumed to be Majorana or Dirac type particle.

Presenter: D., Indumathi

Session Classification: Plenary