

# Bounds on right handed neutrinos from observable leptogenesis

The talk will focus on the testability prospects of the minimal GeV-scale Type-I seesaw model and the associated leptogenesis mechanism within future experiments as SHiP and FCC-ee.

To this end we classify the parameter space according to associated washout regimes.

This allows us to derive an accurate analytical approximation to the solution of the kinetic equations, exposing the non-trivial parameter dependencies in the form of first principles CP invariants.

In particular, by requiring that the measured baryon asymmetry is reproduced, we derive robust mass-dependent upper and lower bounds on the HNL mixing.

We also reveal the correlation of baryogenesis with other observables, as e.g. the flavour structure or neutrinoless double-beta decay.

## Participation

I plan to attend in person

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**Session Classification:** Heavy Neutral Leptons and possible connections with active neutrino physics