



Contribution ID: 74

Type: **not specified**

Non-Abelian aspects of chiral gauge theories in the BMHV scheme at two-loop order

Wednesday 24 September 2025 14:15 (15 minutes)

We discuss the full two-loop renormalization of a chiral gauge theory for non-anticommuting γ_5 at the example of a Non-Abelian toy model. We employ the BMHV scheme which trades the computational comfort of DReg calculations for consistency at arbitrary order. Crucially, BRST symmetry is spuriously broken and must be restored. We carry through the renormalization despite such obstructions and obtain the complete set of symmetry-restoring counterterms. This study falls into line with our previous efforts and presents the first multiloop calculation for the Non-Abelian case.

Primary author: KÜHLER, Paul (TU Dresden)

Presenter: KÜHLER, Paul (TU Dresden)

Session Classification: Parallel Sessions Wednesday Pheno 2

Track Classification: Particle Phenomenology