

CV

- Name: Claude Duhr
- 2006-2009: PhD, UCLouvain.
- 2009-2011: PD, IPPP Durham.
- 2011-2013: PD, ETH Zurich.
- 2012-2014: Lecturer, IPPP Durham.
- From Oct. 2014: 'Chercheur Qualifié', UCLouvain.
- From Dec. 2014: CERN.
- Research Interests:
 - ➔ Scattering amplitudes in QCD and SYM.
 - ➔ Higher-order computations.
 - ➔ FeynRules.

Scattering Amplitudes

- Mathematical properties of multi-loop amplitudes:
 - ➔ Special functions (polylogarithms, elliptic, ...)
 - ➔ Relation to number theory (motivic coaction...)
- Planar $N=4$ SYM:
 - ➔ Wilson loops, amplitudes, correlators, ...
 - ➔ Hexagon bootstrap
 - ➔ Multi-Regge limit of $N=4$ amplitudes
- IR structure of gauge theory amplitudes.
 - ➔ Structure of soft anomalous dimension at higher loop orders.

Higher order computations

- Inclusive Higgs cross section at N³LO
- Colorful NNLO
 - ➔ Analytic integration of IR counterterms to prove pole cancellation.
 - ➔ $H \rightarrow b\text{-}b\bar{b}$
 - ➔ $e^+e^- \rightarrow 3\text{jets}$ (to appear)
- Future:
 - ➔ More N³LO
 - ➔ Colorful NNLO for hadron collisions.