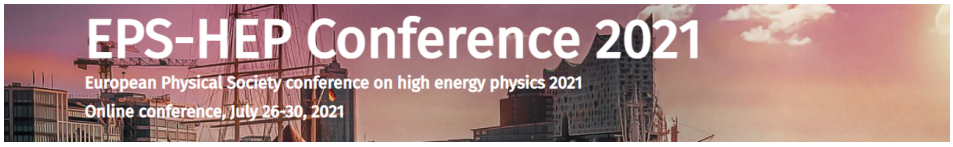

Contribution ID: **481** Type: **Poster**

Scalar Leptoquark Pair Production at Hadron Colliders

I will present precision predictions for scalar leptoquark pair production at hadron colliders. Apart from QCD contributions, included are the lepton t-channel exchange diagrams relevant in the light of the recent B-flavor anomalies. All contributions are evaluated at next-to-leading order in QCD and improved by resummation corrections, in the threshold regime, from soft-gluon radiation at next-to-next-to-leading-logarithmic accuracy. All corrections are found equally relevant. Furthermore, the impact of different sets of parton distribution functions will be discussed. These predictions consist of the most precise leptoquark cross section calculations available to date and are necessary for the best exploitation of leptoquark LHC searches.

First author

Christoph Borschensky

Email

christoph.borschensky@uni-tuebingen.de

Collaboration / Activity

Theory

Primary authors: Dr BORSCHENSKY, Christoph (University of Tübingen); Prof. FUKS, Benjamin (LPTHE Paris); Prof. KULESZA, Anna (University of Münster); Dr SCHWARTLÄNDER, Daniel (University of Münster)

Presenter: Dr BORSCHENSKY, Christoph (University of Tübingen)

Session Classification: T10: Searches for New Physics

Track Classification: Searches for New Physics