



Contribution ID: 378

Type: **Poster Presentation**

## Improved search for dark matter produced in association with a hadronically decaying vector boson with the ATLAS detector

**Abstract:** We present a search for dark matter particles produced in association with a hadronically decaying  $W$  or  $Z$  boson. The analysis is performed with 36.5/fb of proton-proton collision data at a centre-of-mass energy of 13 TeV recorded by the ATLAS detector at the Large Hadron Collider. With the full 13 TeV dataset and an increased signal acceptance, this result significantly improves over previous ATLAS searches in the same final state. In the search we do not observe any significant excess over the Standard Model prediction. The search results are interpreted in terms of an effective field theory and a simplified vector-mediator model describing dark matter interactions with Standard Model particles.

### Experimental Collaboration

ATLAS

**Presenter:** LOU, Xuanhong (Deutsches Elektronen-Synchrotron (DE))**Session Classification:** Poster session**Track Classification:** Dark Matter