

## Search for top-philic resonances with the ATLAS Detector

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Heavy resonances coupling predominantly to top quarks (top-philic) are predicted by some extensions of the Standard Model. These models can address several open questions, in particular the “naturalness problem” which corresponds to the fine-tuned corrections necessary to explain the Higgs boson mass. The analysis presented here searches for top-philic resonances in final states with three or four top quarks and makes use of proton-proton collision data collected by the ATLAS detector between 2015 and 2018 at a center-of-mass energy of 13 TeV. Jet reclustering techniques are used to explicitly reconstruct the resonance mass, allowing for a model-independent “bump-hunt” in addition to a model dependent interpretation in terms of a simplified model.

[in person]

**Primary author:** LE BOULICAUT ENNIS, Elise

**Presenter:** LE BOULICAUT ENNIS, Elise

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