

Search for di-photon resonances with the ATLAS experiment

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Summary

In this talk a search for a resonance in the two photons channel with the ATLAS detector at LHC will be reviewed. The presented analyses are based on 3.2 fb⁻¹ of 13 TeV collision delivered by the LHC in 2015. Two searches were performed in this channel, one optimized for an hypothetical spin 0 particle and one optimized for a spin 2 Randall Sundrum Graviton. The maximum deviation from the background only hypothesis has been observed around 750 GeV, the local significance was estimated. Also the global significance was evaluated taking into account the LEE effect. Updated limits for the two signal hypothesis are also reported.

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