

# Top mass with template fits in the di-lepton channel at 13TeV

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The top quark is the most massive particle in the Standard Model and the precise measurement of its mass could be the key to unveil new physics. The aim of the analysis is to reduce the uncertainty of the measurement by avoiding the modelling of the hadronic decay of the W from the top events. By using the di-lepton channel and, in particular, 5 leptonic observables sensitive to the top quark mass ( $p_T(l^+)$ ,  $p_T(l^+l^-)$ ,  $p_T(l^+) + p_T(l^-)$ ,  $M(l^+l^-)$  and  $E(l^+) + E(l^-)$ ), the pole mass can be calculated with high precision with template fits with the ATLAS Run-2 data.

## Summary

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