

# Quark Matter 2019 - the XXVIIIth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions



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## Azimuthal anisotropy and nuclear modification of Upsilon states in PbPb collisions with the CMS detector

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The production cross-sections are reported for the  $\Upsilon(1S)$ ,  $\Upsilon(2S)$ , and  $\Upsilon(3S)$  mesons in pp and PbPb collisions at 5.02 TeV, as functions of transverse momentum and rapidity. The dependence of the yield on the event activity and collision centrality is also presented for PbPb collisions. A comparison with the 2.76 TeV data in order to assess the energy dependence of the hot nuclear effects. Additionally, a new measurement of the azimuthal anisotropy ( $v_2$ ) of the  $\Upsilon(1S)$  meson is reported. The results are discussed in the context of the sequential melting scenario in dense partonic matter, considering the effect from recombination of uncorrelated quarks, as well as the impact of the medium and its collective evolution.

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