

Measurements of the Z boson via the two-lepton channels in heavy ion collisions in ATLAS

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The color neutral Z boson is an excellent probe of the hot dense matter produced in heavy ion collisions. The products of the Z boson di-lepton decays do not interact with the dense color matter, thus, the Z boson allows us insight into the initial hard scattering that produced it and provides a clean test of our understanding of the collision. The ATLAS experiment has measured $Z \rightarrow e\bar{e}$ and $Z \rightarrow \mu\bar{\mu}$ in Pb+Pb collisions with $\sqrt{s_{NN}}=2.76$ TeV in a data sample corresponding to 140 inverse microbarns of integrated luminosity. The measurement of Z boson production and their properties as observed in these interactions will be described.

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