

# CENTRALITY DEPENDENCE OF NEUTRAL PION PRODUCTION IN 158 A·GeV Pb+Pb COLLISIONS

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The production of neutral pions in 158-A GeV  $^{208}\text{Pb}+^{208}\text{Pb}$  collisions has been studied in the WA98 experiment at the CERN SPS. Transverse momentum spectra are studied for the range  $0.3 \text{ GeV}/c \leq m_T - m_0 \leq 4.0 \text{ GeV}/c$ . The results for central collisions are compared to various models. The centrality dependence of the neutral pion spectral shape and yield is investigated. An invariance of the spectral shape and a simple scaling of the yield with the number of participating nucleons is observed for centralities with greater than about 30 participating nucleons which is most naturally explained by assuming an equilibrated system.

Abstract of published paper: *Phys. Rev. Lett.* **81**, 4087 (1998).