Abstract Submitted for the SES16 Meeting of The American Physical Society

Predictions for 5.02A TeV Pb+Pb Collisions from A Multi-Phase Transport Model ZI-WEI LIN, East Carolina University, GUO-LIANG MA, Shanghai Institute of Applied Physics — A multi-phase transport (AMPT) model [1] aims to provide a kinetic description of essential stages of high-energy heavy ion collisions. Currently the string melting version of the AMPT model consists of a fluctuating initial condition, parton elastic scatterings, quark coalescence for hadronization, and hadronic interactions. In this talk I will show our predictions for 5.02A TeV Pb+Pb collisions at the Large Hadron Collider [2]. While we compare with the already-available centrality dependence data on charged particle $dN/d\eta$ at mid-pseudorapidity in Pb+Pb collisions at 5.02 TeV [3], we make predictions [2] on identified particle dN/dy, p_T spectra, anisotropic flows v_n , and factorization ratios $r_n(\eta^a, \eta^b)$ for longitudinal correlations. [1] Z.W. Lin, C.M. Ko, B.A. Li, B. Zhang, and S. Pal, Phys. Rev. C 72, 064901 (2005); source codes available at http://myweb.ecu.edu/linz/ampt/ [2] G.L. Ma and Z.W. Lin, Phys. Rev. C 93, 054911 (2016). [3] J. Adam et al. [ALICE Collaboration], Phys. Rev. Lett. 116, 222302 (2016).

> Zi-Wei Lin East Carolina University

Date submitted: 30 Sep 2016

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