

**Erratum: Centrality Dependence of Neutral Pion Production  
in 158A GeV  $^{208}\text{Pb} + ^{208}\text{Pb}$  Collisions  
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M. M. Aggarwal, A. Agnihotri, Z. Ahammed, A. L. S. Angelis, V. Antonenko, V. Arefiev, V. Astakhov, V. Avdeitchikov, T. C. Awes, P. V. K. S. Baba, S. K. Badyal, A. Baldine, L. Barabach, C. Barlag, S. Bathe, B. Batiounia, T. Bernier, K. B. Bhalla, V. S. Bhatia, C. Blume, R. Bock, E.-M. Bohne, Z. K. Bőröcz, D. Bucher, A. Buijs, H. Büsching, L. Carlen, V. Chalyshov, S. Chattopadhyay, R. Cherbachev, T. Chujo, A. Claussen, A. C. Das, M. P. Decowski, V. Djordjadze, P. Donni, I. Doubovik, M. R. Dutta Majumdar, K. El Chenawi, S. Eliseev, K. Enosawa, P. Foka, S. Fokin, V. Frolov, M. S. Ganti, S. Garpman, O. Gavrishchuk, F. J. M. Geurts, T. K. Ghosh, R. Glasow, S. K. Gupta, B. Guskov, H. A. Gustafsson, H. H. Gutbrod, R. Higuchi, I. Hrivnacova, M. Ippolitov, H. Kalechofsky, R. Kamermans, K.-H. Kampert, K. Karadjev, K. Karpio, S. Kato, S. Kees, H. Kim, B. W. Kolb, I. Kosarev, I. Koutcheryaev, T. Krümpel, A. Kugler, P. Kulinich, M. Kurata, K. Kurita, N. Kuzmin, I. Langbein, A. Lebedev, Y. Y. Lee, H. Löhner, L. Luquin, D. P. Mahapatra, V. Manko, M. Martin, A. Maximov, R. Mehdiyev, G. Mgebrichvili, Y. Miake, D. Mikhalev, G. C. Mishra, Y. Miyamoto, D. Morrison, D. S. Mukhopadhyay, V. Myalkovski, H. Naef, B. K. Nandi, S. K. Nayak, T. K. Nayak, S. Neumaier, A. Nianine, V. Nikitine, S. Nikolaev, P. Nilsson, S. Nishimura, P. Nomokonov, J. Nystrand, F. E. Obenshain, A. Oskarsson, I. Otterlund, M. Pahr, A. Parfenov, S. Pavliouk, T. Peitzmann,\* V. Petracek,\* W. Pinanaud, F. Plasil, M. L. Purschke, B. Raeven, J. Rak, R. Raniwala, S. Raniwala, V. S. Ramamurthy, N. K. Rao, F. Retiere, K. Reygers, G. Roland, L. Rosselet, I. Roufanov, C. Roy, J. M. Rubio, H. Sako, S. S. Sambyal, R. Santo, S. Sato, H. Schlagheck, H.-R. Schmidt, G. Shabratova, I. Sibiriak, T. Siemiarczuk, D. Silvermyr, B. C. Sinha, N. Slavine, K. Söderström, N. Solomey, S. P. Sørensen, P. Stankus, G. Stefanek, P. Steinberg, E. Stenlund, D. Stüken, M. Sumbera, T. Svensson, M. D. Trivedi, A. Tsvetkov, C. Tvenhöfel, L. Tykarski, J. Urbahn, N. v. Eijndhoven, G. J. v. Nieuwenhuizen, A. Vinogradov, Y. P. Viyogi, A. Vodopianov, S. Vörös, B. Wyslouch, K. Yagi, Y. Yokota, and G. R. Young

(WA98 Collaboration)

In this paper, the absolute cross section determination associated with the different centrality selections was made with a limited data set which was not representative of the full analysis. This resulted in a systematic overestimate of the number of participants  $N_{\text{part}}$  (or the number of collisions). The relative magnitude of this correction is significant for the most peripheral centrality class and nearly negligible for the most central event class. The neutral pion transverse momentum spectra are unchanged. As a result of this correction, the data points of Fig. 2 should be shifted by varying degrees towards the origin on the number of participants scale. However, the conclusion of a saturation of the average transverse momentum with increasing centrality drawn from this figure remains unchanged.

Similarly, the major conclusion of Fig. 3 remains unchanged: In the region of centralities where the saturation of the average transverse momentum is observed, the scaling of the pion yield is independent of the transverse momentum; i.e.,

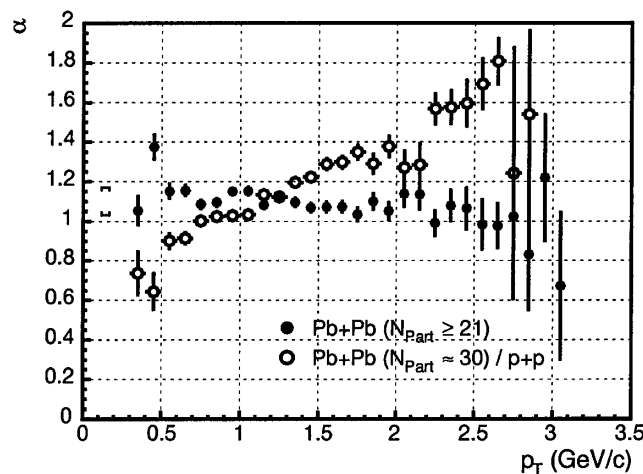


FIG. 1. The exponent  $\alpha(p_T)$  of the dependence of the  $\pi^0$  yield on the average number of participants  $N_{\text{part}}$  plotted as a function of the transverse momentum for 158A GeV Pb + Pb. The solid circles are calculated based on the centrality selections with  $N_{\text{part}} \geq 21$ . The open circles are calculated based on the ratio of the semiperipheral data ( $N_{\text{part}} \approx 30$ ) to a parametrization of  $pp$  data. The brackets indicate the estimated systematic error on the exponent  $\alpha$ .

the spectral shape does not change. However, with the corrected assignment of the number of participants the scaling exponent is reduced to  $\alpha \approx 1.1$  from the value of  $\alpha \approx 1.3$  given previously. The corrected version of Fig. 3 is displayed in Fig. 1. In addition to the correction of the cross section determination, the event generator VENUS 4.12 [1] has been used to relate the measured cross section to the number of participants  $N_{\text{part}}$ . The differences in  $N_{\text{part}}$  from this calculation compared to various Glauber calculations are used to estimate the systematic error on the exponent  $\alpha$  shown in Fig. 1. The values for the exponents  $\alpha$  of the scaling from  $pp$  data compared to semiperipheral Pb + Pb data are slightly higher than before, while the fit using semiperipheral up to very central Pb + Pb data yields a significantly smaller value. A further conclusion can be drawn from this corrected analysis: At high transverse momentum the increase in pion production going from  $pp$  to peripheral heavy ion reactions is much stronger than in going from semiperipheral to central heavy ion reactions.

\*The names of these authors were misspelled in the original publication.

[1] K. Werner, Phys. Rep. **232**, 87 (1993).