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Author(s): Bouras, I.; El, A.; Fochler, O.; Niemi, Harri; Xu, Z.; Greiner, C.

Title: Corrigendum to “Transition from ideal to viscous Mach cones in a kinetic transport approach”

Year: 2014

Version:

Please cite the original version:

Bouras, I., El, A., Fochler, O., Niemi, H., Xu, Z., & Greiner, C. (2014). Corrigendum to “Transition from ideal to viscous Mach cones in a kinetic transport approach”. *Physics Letters B*, 728(January), 156. <https://doi.org/10.1016/j.physletb.2013.11.059>

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Corrigendum

Corrigendum to “Transition from ideal to viscous Mach cones in a kinetic transport approach”

[Phys. Lett. B 710 (4–5) (2012) 641] [☆]



I. Bouras ^a, A. El ^a, O. Fochler ^a, H. Niemi ^b, Z. Xu ^c, C. Greiner ^a

^a Institut für Theoretische Physik, Johann Wolfgang Goethe-Universität, Max-von-Laue-Str. 1, D-60438 Frankfurt am Main, Germany

^b Department of Physics, P.O. Box 35 (YFL), FI-40014 University of Jyväskylä, Finland

^c Department of Physics, Tsinghua University, Beijing 100084, China

ARTICLE INFO

Article history:

Available online 3 December 2013

Eq. (4) has to be replaced by

$$\frac{dN}{Nd\phi} = \frac{V}{N(2\pi)^3} \int_0^\pi d\theta \sin\theta \int_0^\infty p^2 \left(e^{-\frac{u_+^\mu p_\mu}{T}} + e^{-\frac{u_-^\mu p_\mu}{T}} \right) dp. \quad (1)$$

The sentence “Therefore, as long as we keep the energy dissipation rate constant, the...” has to be replaced by “Therefore, the only length scales that control the solution are the mean free path, $\lambda_{\text{mfp}} \propto \eta$, and the energy deposition rate, dE/dx .”

Eq. (6) has to be replaced by

$$e\left(t - t_0, x - x_0, y - y_0, \frac{dE}{dx}, \eta\right) = e'\left(\frac{t - t_0}{C}, \frac{x - x_0}{C}, \frac{y - y_0}{C}, \frac{1}{C^{N-1}} \frac{dE}{dx}, \eta'\right). \quad (2)$$

After “...where the scaling factor $C = \eta'/\eta$, and x_0 and y_0 are the coordinates of the projectile at the time t_0 ,” we add the sentence “Here, N counts the physically relevant number of dimensions in space. In our case we have $N = 2$ since we keep the z -direction as homogeneous.”

The following sentence “Using this scaling behavior, we can also read Fig. 3...” has to be replaced by “Using this scaling behavior, we can interpret Fig. 3 as a time-evolution of the solution, with a larger viscosity corresponding to an earlier time and with an appropriate scaling of the energy deposition rate. For example, the solutions with $\eta/s = 0.5$ in the right-most panel of Fig. 3 will evolve to the ones with $\eta/s = 0.05$ at time $t = 25 \text{ fm}/c$ (with the appropriate scaling of the x - and y -axes and the energy deposition rate).”

DOI of original article: <http://dx.doi.org/10.1016/j.physletb.2012.03.040>.

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E-mail address: bouras@th.physik.uni-frankfurt.de (I. Bouras).

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<http://dx.doi.org/10.1016/j.physletb.2013.11.059>