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RECEIVED 01 April 2023

ACCEPTED 13 April 2023

PUBLISHED 09 May 2023

CITATION

Lake MJ, Liang S-D and Watcharapasorn
A (2023), Corrigendum:
Dimensionally-dependent uncertainty
relations, or why we (probably) won't see
micro-black holes at the LHC, even if
large extra dimensions exist.
Front. Astron. Space Sci. 10:1198444.
doi: 10.3389/fspas.2023.1198444

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Corrigendum: Dimensionally-dependent uncertainty relations, or why we (probably) won't see micro-black holes at the LHC, even if large extra dimensions exist

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Anucha Watcharapasorn^{2,7*}¹National Astronomical Research Institute of Thailand, Chiang Mai, Thailand, ²Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand, ³School of Physics, Sun Yat-Sen University, Guangzhou, China, ⁴Department of Physics, Babeş-Bolyai University, Cluj-Napoca, Romania, ⁵Office of Research Administration, Chiang Mai University, Chiang Mai, Thailand, ⁶State Key Laboratory of Optoelectronic Material and Technology, Guangdong Province Key Laboratory of Display Material and Technology, Sun Yat-Sen University, Guangzhou, China, ⁷Center of Excellence in Quantum Technology, Faculty of Engineering, Chiang Mai University, Chiang Mai, Thailand

KEYWORDS

compactification, higher dimensions, Compton wavelength, primordial black holes, generalized uncertainty relations, self-gravity

A Corrigendum on

[Dimensionally-dependent uncertainty relations, or why we \(probably\) won't see micro-black holes at the LHC, even if large extra dimensions exist](#)by Lake MJ, Liang S-D and Watcharapasorn A (2023). *Front. Astron. Space Sci.* 10:1155667. doi: 10.3389/fspas.2023.1155667In the published article, there were three errors. **Equations 11–13** contained typos, which caused them to be mathematically incorrect.Corrections have been made to **Section 2: Equation 11** previously stated

$$\mathcal{R}_S(M) \simeq \frac{G_{4+n}M}{c^2} \simeq (R_S(M) R_E)^{\frac{1}{1+n}}. \quad (1)$$

The corrected formula is given as follows:

$$\mathcal{R}_S(M) \simeq \left(\frac{G_{4+n}M}{c^2} \right)^{\frac{1}{1+n}} \simeq (R_S(M) R_E^n)^{\frac{1}{1+n}}. \quad (2)$$

Equation 12 previously stated

$$\mathcal{R}(M) \simeq (R(M) R_E)^{\frac{1}{1+n}}. \quad (3)$$

The corrected formula is given as follows:

$$\mathcal{R}(M) \simeq (R(M) R_E^n)^{\frac{1}{1+n}}. \quad (4)$$

Equation 13 previously stated

$$\mathcal{R}_C(M) \simeq (R_C(M) R_E^n)^{\frac{1}{1+n}} \simeq R_* \left(\frac{M_{Pl}}{M} \right)^{\frac{1}{1+n}}. \quad (5)$$

The corrected formula is given as follows:

$$\mathcal{R}_C(M) \simeq (R_C(M) R_E^n)^{\frac{1}{1+n}} \simeq R_* \left(\frac{M_{Pl}}{M} \right)^{\frac{1}{1+n}}. \quad (6)$$

The authors apologize for these errors and state that they do not change the scientific conclusions of

the article in any way. The original article has been updated.

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