Corrigendum to: "Numerical irreversibility in self-gravitating small N-body systems" [Physica A 387 (2008) 2267-2278]

メタデータ 言語: eng
出版者:
公開日: 2017-10-03
キーワード (Ja):
キーワード (En):
作成者:
メールアドレス:
所属:
URL http://hdl.handle.net/2297/16730

Corrigendum to "Numerical irreversibility in self-gravitating small N-body systems" [Physica A 387 (2008) 2267-2278]

Nobuyoshi Komatsu^a, Takahiro Kiwata^a and Shigeo Kimura^b

^a Department of Mechanical Systems Engineering, Kanazawa University, Kakuma-machi, Kanazawa, Ishikawa 920-1192, Japan

b The Institute of Nature and Environmental Technology, Kanazawa University, Kakuma-machi, Kanazawa, Ishikawa 920-1192, Japan

This is a Corrigendum to Physica A 387 (2008) 2267-2278, in which the descriptions for the unit of time and Eq. (5) were incorrect by mistake. The corrections are given as follows. Note that the corrections do not affect any of our results and conclusions.

On page 2269, the unit of time is chosen so that the gravitational constant G is unity, i.e., $G \times [M][L]^{-3}[T]^2 = 1$, where [M], [L] and [T] represent the units of mass, length and time, respectively. Therefore, the unit of time should be $\sqrt{R^3/(Gm)}$, since the units of mass and length are m and R, respectively.

On page 2270, Eq. (5) should be replaced by the following equation: $\tau_c \approx 1/\sqrt{G\rho} = 1/\sqrt{\rho}$, where ρ represents the density of the system.

Email address: komatsu@t.kanazawa-u.ac.jp (Nobuyoshi Komatsu).