

Erratum: Slip velocity and Knudsen layer in the lattice Boltzmann method for microscale flows [Phys. Rev. E 77, 026704 (2008)]

Seung Hyun Kim, Heinz Pitsch, and Iain D. Boyd
(Received 24 March 2008; published 15 April 2008)

DOI: [10.1103/PhysRevE.77.049903](https://doi.org/10.1103/PhysRevE.77.049903)

PACS number(s): 47.11.-j, 47.61.-k, 05.20.Dd, 99.10.Cd

The paper has typographical errors. In Eqs. (20) and (21) and the caption of Fig. 4, “ u_0 ” should read “ $4u_m$ ”—the factor “4” was omitted, and “ u_0 ” is changed to “ u_m ” in order to avoid confusion with the integration constant introduced in Eq. (38). Also, the integration interval in Eq. (20) should be changed from $\int_0^H \dots$ to $\int_{-H/2}^{H/2} \dots$.

(1) Equation (20) and the following sentence should read

$$Q_\delta = \frac{\delta}{4u_m H} \int_{-H/2}^{H/2} u \, dy = \frac{1}{6} \delta + \sigma + \frac{(2\sigma^2 - 1)}{\delta},$$

where $\sigma = 1.01615$, and u_m is....

(2) Equation (21) should read

$$Q = \frac{1}{4u_m H \text{Kn}} \int_{-H/2}^{H/2} u \, dy = \frac{1}{6 \text{Kn}} + c_1 - (2c_2 + c_3) \text{Kn}.$$

(3) The caption of Fig. 4 should read “... $Q = 1 / (4u_m H \text{Kn}) \int_{-H/2}^{H/2} u \, dy$, where u_m is....”