Erratum: Supplemental simulation to "Estimate of temperature and its uncertainty in small systems" [Am. J. Phys. 79 (7), 775–785 (2011)]

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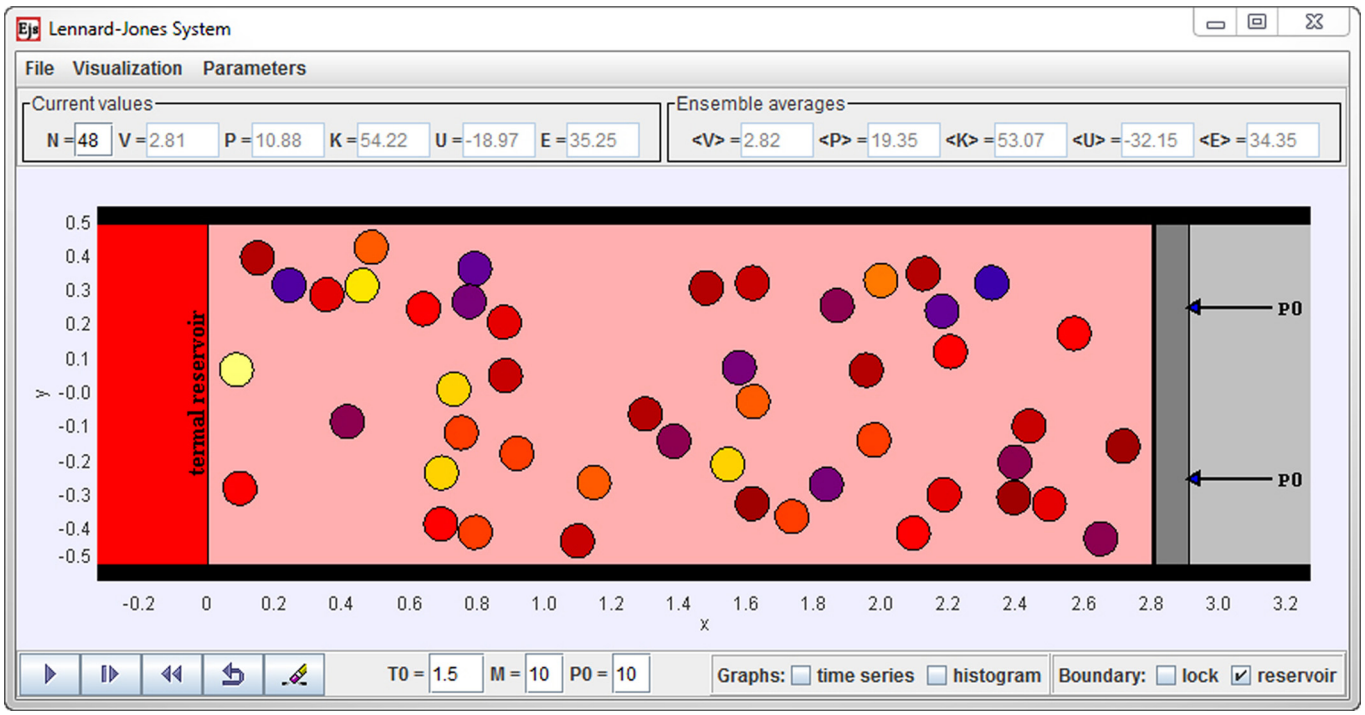
(Received 29 June 2011; accepted 29 June 2011)
[DOI: 10.1119/1.3622635]

The following description of a supplemental simulation for this article was left out of the print version of AJP, and the online version contains the following graphic and a link to this full description.



The Confined Lennard-Jones System is an idealized statistical mechanics model that simulates a two-dimensional system of particles confined to a box with a constant temperature thermal reservoir at one end and a movable piston at the other. Particles interact through pairwise Lennard-Jones forces and hard-wall contact forces and Newton's equations of motion are integrated using a Velocity Verlet ODE solver. The main window shows the system with slow-moving particles color-coded as blue and fast particles color-coded as yellow.

http://www.compadre.org/osp/items/detail.cfm?ID=10564

The model displays the evolution of the total energy E, the kinetic energy K, the pressure P, and the volume V in a second window. A third window displays histograms and mean values of these quantities. The Confined Hard Disk System model is a companion to the Lennard-Jones model.

http://www.compadre.org/osp/items/detail.cfm?ID=10565

The Confined Lennard-Jones System and Confined Hard Disk System models are supplemental simulations for the paper by M. Falcioni, A. Puglisi, A. Sarracino, D. Villamaina, and A. Vulpiani and have been approved by the authors and the AJP editor. Related items can be found in the OSP Collection by searching for "molecular dynamics" and "statistical mechanics." Partial funding for the development of these models was obtained through NSF Grant No. DUE-0937731.

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