Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Confined ring polymers as a model nucleoid[1] BAE-YEUN HA, C. JEON, University of Waterloo, J. KIM, H. JEONG, KAIST, Korea, S. JUN, University of California, San Diego, Y. JUNG, KISTI, Korea — The bacterial chromosome is tightly packed in an intracellular space called the nucleoid with its loci linearly and precisely positioned. Here we propose a model nucleoid: a ring polymer confined in a cylindrical space. When the cylinder-ring parameters are chosen properly, our model describes the observed locus distributions of the *E. coli* chromosome surprisingly well. Our results illustrate how the geometry and function of the nucleoid are interrelated.

[1]This work was supported by the collaborative research contract funded by Korea Institute of Science & Technology Information (KISTI, Korea) and NSERC (Canada).

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Date submitted: 15 Nov 2013 Electronic form version 1.4