

Abstract Submitted  
for the SES19 Meeting of  
The American Physical Society

**Ordering in magnetic skyrmion lattices**<sup>1</sup> JAMES STIDHAM, MICHEL PLEIMLING, Virginia Tech — Ordering in magnetic skyrmion lattices is an active area of research for skyrmion systems. In this talk, we present recent results obtained using Langevin molecular dynamic simulations, based on a previously derived particle model of skyrmions. Using a Voronoi cell algorithm, we examine the effect of the Magnus force present in skyrmion systems and how it affects ordering when noise is both present and absent in the system. We observe power-law behavior during late time ordering in these skyrmion systems. We also find power-law behavior when looking at the difference in time of consecutive events as the system orders.

<sup>1</sup>This research was supported by the US Department of Energy, Office of Basic Energy Sciences, Division of Materials Sciences and Engineering under Grant No. DE-SC0002308.

Michel Pleimling  
Virginia Tech

Date submitted: 27 Sep 2019

Electronic form version 1.4