

# Comments on the report by Jacob Errington and Kevin Li

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**General Comments** Fascinating problem! You should consider the analogous problem that arose in trying to relate thermodynamics (swarm behaviour) with statistical mechanics (averaging over individuals). I liked the introduction though I never understood why they thought that model-checking would help here. I would have thought that one should appeal to statistical mechanics ideas from physics. What is a gas after all but a swarm of molecules?

While your paper is very good it suffers from the limitations of its source. They should have been aware of the deep literature connecting differential equations and Markov processes or stochastic differential equations.

Nice quick introduction to pCTL.

I am impressed with the experimental work that you did. It is not easy to use systems like PRISM without guidance. Very nice conclusions with insightful discussion and critiques.

**Comments on the text** “Contrairiwise”! Are you basing your writing on Alice Through the Looking-Glass?

*Very* well written. A slight tendency to use superlatives too freely.

**Score** 24/25