

## Galaxy Interactions via Runge-Kutte N-body Simulation

RYAN WILLS

(Dated: May 6th)

WILL

As a general note for the writeup, it typically good to have figure captions. Also, both of the figures did not have axes labels to explain what they were or what units the tick marks were in.

I think that inheritance is a pretty interesting method for creating data structure, and I've certainly learned something from reading the paper and looking at the code. The code is well organized and well documented where it needs to be. My only criticism is that it would be nice to see some comments on what the units are in the values Will uses in his simulated data, as well as what units the galaxy object numbers should be in.

BRENDAN

I thought Brendan's presentation was very well put together and very informing on the topic. It seems he did quite a lot of interesting analysis using both MCMC techniques and least-squares.

As for Brendan's code, it very well documented. I think it would be quite easy to follow his code and make changes to it. The comparison between least squares and MCMC is interesting.

PETER

Generally this seems like pretty interesting project, the connections to ideas in biology are really cool. I don't think I would be able to reproduce what is going on myself, but that is not necessarily because of a lack of documentation, it is a lack of my ability to understand it in a timely manner. It is nice that Peter provides a test file to work through using his code. Honestly, some of the ideas about choosing populations and iterating through generations to get to the real answer sounds slightly like MCMC, but way more complicated.

My only complaint is that the figures have rather small font sizes for labels and ticks.