Abstract Submitted for the SES12 Meeting of The American Physical Society

**Galaxy Collision Modeling**<sup>1</sup> KIRUBAA THAVAYOGANATHAN, Francis Marion University — This project is a study of colliding galaxies. Using a parallelized N-Body code called GADGET-2, we create a model of the collision between Milky Way galaxy and Sagittarius dwarf galaxy (SDG). The SDG system is one of the closet dwarf galaxies to the Milky Way and observations provide very accurate positional and kinematical data for computer modeling. Through varying the parameters of the starting location of the SDG system we are able to study the resulting position of the SDG after 1 billion years has passed. Using the position of the SDG system as observed today we will be able to modify the initial position of the SDG system to produce an even better model.

<sup>1</sup>Palmetto Academy, a division of the NASA SC Space Grant

Kirubaa Thavayoganathan Francis Marion University

Date submitted: 19 Sep 2012

Electronic form version 1.4