

Abstract Submitted
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Simulating the Interactions of the Sagittarius Dwarf Galaxy and the Milky Way MARY RUSTHOVEN, SC Governor's School for Science and Mathematics , JEANNETTE MYERS, BART SNYDER, Francis Marion University, LIH-SIN THE, DIETER HARTMANN, Clemson University — The Sagittarius Dwarf Galaxy is one of the satellite galaxies interacting with the Milky Way. Discovered to be located just below the galactic center; this galaxy is currently being tidally disrupted as it approaches the Milky Way disk. We performed a series of four N-body simulations of the interaction between Sagittarius and the Milky Way over a 1 Gyr time period leading up to today's position. Two of the simulations were designed to test the initial conditions used for the Milky Way model. The other two simulations were designed to test what happens when the Milky Way is treated as a static system with only the Sagittarius system evolving with time.

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