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Simulating the 2007 April 19 CME

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We model the solar corona and propagation of a coronal mass ejection (CME) that was observed with LASCO on April 19, 2007. The resulting ICME was observed with SECCHI (STEREO A) to impact comet Encke on April 20. We compare the results of our three-dimensional global MHD simulation of this event with both sets of observations. In particular, we make synthetic Thomson-scattered white light images from the simulation to quantitatively compare to the coronagraph images made with LASCO and SECCHI. We identify similar structures in the observed images and data and follow their evolution in interplanetary space.