



Multiscale Processes with Multipoint Observations: The Contribution of the Magnetospheric Multiscale Mission

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The current sheets in the magnetosphere extend hundreds of thousands of kilometers and are hundreds to thousands of kilometers thick. The gyroscales of ions are comparable to the thickness of thin magnetospheric current sheets. In attempt to probe beyond the proton scale into the electron scale, the NASA Magnetospheric Multiscale Mission (MMS) has been assembled and readied for its launch, now scheduled for March 12, 2015. Innovations include the sampling of data at high rates, storing it on board, and then later selecting high-interest intervals for transmission to Earth for analysis. The commissioning of the instruments begins immediately upon entry into orbit. This paper previews the early magnetic measurements made with the eight magnetometers on the four MMS spacecraft and the planned program of magnetospheric observations.