

## **Progress in Substorm Research During the Weak Solar Cycle (2006-2016)**

Anthony LUI<sup>#+</sup>

*Johns Hopkins University, United States*

*#Corresponding author: Tony.Lui@jhuapl.edu +Presenter*

The substorm research during the weak solar cycle 2006-2016 had a tremendous boost with the successful launch in 2007 of the NASA mission Time History of Events and Macroscale Interactions During Substorms (THEMIS). The primary goal of the THEMIS mission is to determine the origin of substorm onset location in the magnetotail and the substorm onset process. The essential strategy of this mission is to place five satellites aligned along the tail axis in the downtail distances from 12 Re to 30 Re. This presentation gives some historical perspective on how the initial claim of substorm onset location and substorm onset process based on early THEMIS observations was subsequently modified to align with observational constraints revealed later in the mission. This historical development serves to remind us of the age-old lesson that a rushed decision/conclusion is often the wrong one.