Current sheet structure close to a reconnection point observed by MMS

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The typical picture of magnetic reconnection in the magnetosphere includes a classic Harris-type current sheet, where the current density is maximum at the magnetic equator (Bx=0). However, observations have shown that the magnetotail current sheet structure is much more complicated than this simple view. Therefore, revealing the structure of the current sheet is of importance to understand the reconnection process. Based on the four-point MMS high-resolution data, we present observations of a multiple reconnection event for which we study the structure of the current sheet as well as some of its characteristic scales. We show that the CS structure is highly dynamic during the reconnection process, changing from a bifurcated shape away from the reconnection site, to a more symmetric (Harris-type) structure near the X-line.