Title: Onset of a Solar Filament Eruption Without a Slow-Rise Phase

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Abstract: We observe a filament eruption of 23 Jan 2012 using Atmospheric Imaging Array (AIA) data from the Solar Dynamics Observatory (SDO) satellite. Relatively cool emissions (193 Å channel) show a filament with a rise-toward-eruption trajectory that is relatively smooth, without a distinct, linearly-increasing “slow rise” followed by an abrupt “fast rise,” as is often seen in other events. Detailed investigations of some of those two-phase events suggested that they were triggered by magnetic flux cancellation. Here however, observations of hotter emissions (335 Å channel) show an adjacent eruption, invisible in 193 Å, occurred just prior to the filament's eruption start. We surmise that the hotter eruption destabilized the 193 Å filament, triggering its eruption onset. In this way, the filament's smooth eruption trajectory is indicative of a non-tether-cutting eruption-onset mechanism for the filament.