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3D reconnection in solar flares and the hot flare emission

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The 3D extensions to the Standard model of solar flares have been successfull in explaining various observed phenomena. Among them, there are (1) hot cores (sigmoids), (2) apparent slipping motion of flare looops, (3) saddle-shaped flare arcades, as well as (4) reconnection of the drifting flux rope with the surrounding corona or itself during the eruption. We review the properties of the 3D reconnection geometries and focus on predicted future observables in the hot flare plasma and its dynamics, especially those that the present instrumentation is insufficient to capture.

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