



## **Energy release in braided coronal loops**

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I will examine the dynamics of solar coronal loops containing non-trivial magnetic field line braiding, in the context of Parker's braiding mechanism for coronal heating. The existence of braided force-free equilibria will be discussed, including a demonstration that these equilibria must contain current layers whose thickness decreases for increasing field complexity. The implication for the corona is that if one considers a line-tied coronal loop that is driven by photospheric motions, then the eventual onset of reconnection and energy release is inevitable. Once the initial reconnection event is triggered a turbulent relaxation ensues. The properties of this relaxation will be discussed, together with the expected observational signatures of energy release in such a braided coronal loop.