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## **Modeling flare loop heating via patchy reconnection**

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**Abstract.** We will present a model for flare loop heating resulting from a brief, spatially localized, reconnection event. The three dimensional reconnected flux rope which is created by this event retracts to the low corona, forming part of a flare arcade. During its retraction, it releases magnetic energy into kinetic and thermal energy. We will present three dimensional magnetohydrodynamic simulations of such events, combined with analytical theory and one dimensional hydrodynamic simulations. We will discuss the evolution of the temperature and density in such a flux rope as it retracts from the reconnection site, and we will address the possibility of studying these reconnection dynamics with spectroscopic observations.