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What drives the hot solar corona?

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The outer atmosphere of the Sun, the corona is comprised of tenuous, highly ionized plasma, that is governed by magnetic fields and is heated to more than a million Kelvin. Such hot coronal plasma is thought to be powered by numerous impulsive heating events called nanoflares. What drives these impulsive nanoflares? What role does magnetic field play in coronal heating? We address these long-standing questions through multi-wavelength observations of the Sun that span from the photosphere through the corona. In this talk, we will present new results that reveal an intricate link between the impulsive coronal heating and the evolution of magnetic fields at the solar surface. In particular, we will discuss the role of magnetic reconnection, a process through which magnetic energy is liberated, in the heating of the solar corona.

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