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Thermal-nonthermal energy partition in solar flares: current state and first results from STIX

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Solar eruptive events are characterized by a complex interplay of energy release, transport, and conversion processes. A quantitative characterization of the different forms of energy therefore represents a crucial observational constraint for models of solar eruptions in general, as well as for magnetic reconnection, heating, and particle acceleration processes in particular. This talk will focus on the energy partition between the thermal plasma and the nonthermal particles and review recent studies that have tried to constrain this partition using X-ray, EUV, and bolometric observations. These studies have come to dissimilar conclusions, and an effort will be made to identify the reasons for this. Finally, the first results on energy partition from the STIX instrument on Solar Orbiter will be presented.

Primary author: WARMUTH, Alexander (Leibniz Institute for Astrophysics Potsdam (AIP))

Presenter: WARMUTH, Alexander (Leibniz Institute for Astrophysics Potsdam (AIP))

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