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Spatially resolved imaging spectroscopy with the Spectrometer/Telescope for Imaging X-rays on-board Solar Orbiter

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The fundamental science objective behind solar X-ray imaging spectroscopy is to gain information on the electrons accelerated by magnetic reconnection and on the temperature of the correspondingly heated plasma throughout the whole flaring volume. This talk will prove that the visibility-based technology at the base of the Spectrometer/Telescope for Imaging X-rays (STIX) allows the construction of electron flux and differential emission measure maps that are nicely smoothed along the energy and temperature directions, respectively. Using this approach, we will perform a spatially resolved analysis of the electron flux spectra associated with hard X-ray emissions measured by STIX and discuss the spatially resolved consistency of such emissions with a thermal distribution of the electrons in the flaring source.