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Type: **Invited talk**

Multi-wavelength observations of electron energization in solar flares

Wednesday, 26 May 2021 11:00 (25 minutes)

This talk will provide a review of how electron energization in solar flares can be investigated through multi-wavelength observations.

Signatures of flare accelerated electrons and plasma heating are most readily observed at X-ray, radio, and extreme ultra-violet wavelengths. Observations at these wavelengths provide information on electron energization and transport, such as, where electrons are accelerated, how much energy they contain or where they deposit this energy. In addition, properties of the surrounding plasma, like temperature and density, and the coronal magnetic field strength, can be inferred.

Of particular interest is the acceleration region itself and its surroundings. I will describe the nature of observations at different wavelengths and what we can learn from them about electron energization and the acceleration region. The most important tools we have for multi-wavelength exploitation of the data will be presented along with highlights of the past years from multi-wavelength studies. I will conclude with a brief outlook onto anticipated future progress with observatories such as Solar Orbiter.

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