

**Space Science Seminar
Tuesday, 2021 May 11
10:30 a.m.
NASA/MSFC TEAMS**

A Multi-Wavelength View on Electron Acceleration in Solar Flares

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Host: Dr. Alphonse Sterling (Sponsored by NASA/MSFC/ST13) / Dr. Haihong Che
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Solar flares are the most energetic phenomena in the solar system, releasing and converting energies up to 10^{25} Joule. They allow us to study fundamental processes in magnetized plasmas such as energy release, particle acceleration, and particle transport. The dominant signatures of flare-accelerated electrons are in the X-ray and radio-wavelength domains. I will introduce the main concepts of X-ray and radio diagnostics of flare-accelerated electrons. How do we observe at these wavelengths? What do we see? What can we learn from such observations about electron acceleration and transport? I will present recent highlights from the analysis of data from past and present observatories, including first results from the Spectrometer/Telescope for Imaging X-rays (STIX) on Solar Orbiter.