

**Space Science Seminar
Tuesday, 2021 April 6
10:30 a.m.
NASA/MSFC TEAMS**

Solar Flare Energy Release: New Insights from Broadband Radio Imaging Spectroscopy

Dr. Bin Chen / Center for Solar-Terrestrial Research, New Jersey Institute of Technology
Host: Dr. Alphonse Sterling (Sponsored by NASA/MSFC/ST13) / Dr. Haihong Che (UAH/CSPAR)

Abstract: Solar flares involve the catastrophic release of magnetic energy through magnetic reconnection. Solar flares are also highly efficient particle accelerators, capable of accelerating a large number of charged particles to high energies within a short time. The unique sensitivity of radio emission to the flaring coronal magnetic field and the flare-accelerated high-energy electrons makes it an excellent tool for probing the core of solar flare energy release. In the past decade, we have enjoyed a major transition in solar radio astronomy as it has evolved from imaging at a few discrete frequencies to true broadband imaging spectroscopy. In this talk, I will highlight a series of our recent results based on this new technique, using data from the Expanded Owens Valley Solar Array and the Karl G. Jansky Very Large Array.



Bio: Dr. Bin Chen is an Associate Professor of Physics at the Center for Solar-Terrestrial Research at the New Jersey Institute of Technology. Before that, he held an appointment as an astrophysicist at the Harvard-Smithsonian Center for Astrophysics. He earned his Ph.D. in Astronomy from the University of Virginia in 2013. Dr. Chen was a recipient of the NSF CAREER Award and the NASA/UCAR Jack Eddy Postdoctoral Fellowship. He is currently serving as a committee member of the Solar Physics Division of the American Astronomical Society. Dr. Chen's research focuses on high-energy phenomena on the Sun using radio and multi-wavelength observations. For more information, please visit: <https://web.njit.edu/~binchen/>