

## **A FURST Look at the VUV Sun as a Star**

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Hubble Space Telescope spectra for Sun-like stars are of such quality that we now know the input of radiation from  $\alpha$  Cen A to our solar system far better than that of the Sun. We have therefore proposed the Full-Sun Ultraviolet Rocket Spectrometer (FURST) to obtain the first moderate resolution ( $R > 10^4$ ), radiometrically calibrated VUV spectrum of the Sun-as-a-star. Our immediate science goal is to understand better the processes of chromospheric and coronal heating. The solar spectrum we obtain will enable us to understand the interaction of solar UV radiation with solar system bodies, the nature of magnetic energy dissipation as a Sun-like star evolves, and the dependence of magnetic activity on stellar mass and metallicity. We present the instrument design, scientific prospects, and broader impacts of the mission.