large selection of approximately 100,000 galaxies and low resolution grism slit-less spectroscopy to probe these distant galaxies. The survey provides deep near IR spectra for the 100,000 galaxies across the prodigious CANDELS fields. A previous investigation using a novel method to detect and identify ultra-faint emission lines informed by Bayesian priors on the photometric redshift derived with EAZY resulted in 29 newly classified extreme high-redshift galaxy candidates from the original 3D-HST dataset. The intensive observations required to spectroscopically secure such a faint source necessitates a careful evaluation of the photometry from which the redshift prior is based. Photometric data were re-evaluated by examining individual image cutouts to discount erroneous measurements. Of the 29 galaxies, 3 are found to be outright spurious and 17 are advanced as high-confidence candidates for follow-up observation. This method is well-suited for exploring the high-redshift universe and can be used in future grism based missions such as Euclid and JWST.

Author(s)/Institution(s): J. Tiller, J. Weaver , G. Brammer , K. Whitaker; Department of Physics and Astronomy, Texas A&M University, College Station, TX, Niels Bohr Institute, University of Copenhagen, Cosmic DAWN Center, Copenhagen, DENMARK, Department of Astronomy, University of Massachusetts Amherst, Amherst, MA.

209 - iPoster - The Sun & The Solar System

209.01 - Correlating White Light and Gamma-Ray emission in Solar Flares

Stellar flares are some of the most energetic phenomena that occur in isolated main sequence stars. The most powerful flares on our sun even reach gamma ray (GeV) energies and are often associated with coronal mass ejections (CMEs). Recent surveys have catalogued thousands of optical flares from nearby stars, but the sun is still the only one currently detected in gamma rays. It is difficult to see solar flares in white light due to the very low contrast. In this project we attempt to correlate the gamma ray and white light emission from solar flares during so-called “sustained” gamma ray events, which are associated with powerful CMEs. This study will inform our search for gamma-ray emission from stellar flares.

Author(s)/Institution(s): M. Garcia, T. Paglione , Y. Song, S. Lomuscio; CUNY Hunter College & AMNH, New York, NY, CUNY York College & AMNH, New York, NY, CUNY Graduate Center & AMNH, New York, NY, New Jersey Institute of Technology, Newark, NJ.

209.02 - The Space Weather Underground: A Student-Built Array of Ground-Based Fluxgate Magnetometers in Northern New England

We are constructing a regional ground-based fluxgate magnetometer array in northern New England that will facilitate the study of local ionospheric dynamics with data available to everyone in the scientific community. Each instrument is constructed from SAM-III fluxgate kits by high school students at schools distributed across New England. The magnetometers have a 1 nT sensitivity and 1 sec data cadence. A completed fluxgate with weatherproof housing, photovoltaics, radio data downlink, and GPS for accurate time tags costs $1100. Our goal is to have in excess of 15 sites distributed across Maine, Massachusetts, New Hampshire, Vermont and upstate New York. We currently have 5 sites already producing data, 2 of which are now feeding data into the SWUG Data Center that exists in a preliminary form. The technology is developed and proven to work. The array and data center are scalable. Our goal is to involve motivated high school students in the building of scientific instruments, the analysis of real scientific data, and to use that effort to provide motivation for learning core math, physics, engineering, and computer programming lessons as they explore possible career paths for the future. In the process, we will be generating useful scientific data that will be available to all.

Author(s)/Institution(s): J. A. Blackwell, C. Smith , L. Ercoline, S. Goelzer, A. Johnson, H. Kucharek , M. Lessard , R. Levergood, W. Reeve, M. Routhier , N. Schwadron , A. Watson, C. Young; Grainger Observatory - Science, Phillips Exeter Academy, Exeter, NH, Physics Department and Space Science Center, University of New Hampshire, Durham, NH, Science, ConVal Regional High School, Peterborough, NH, Science, Coe-Brown Northwood Academy, Northwood, NH, Science, Londonderry High School, Londonderry, NH, Reeve Engineers, Anchorage, AK.

209.03 - Gamma-rays from Jupiter

This project aims to detect and study gamma-ray emission from Jupiter using data from the Fermi Gamma-ray Space Telescope for the full mission elapsed time. Young dwarf stars are the most abundant in the Milky Way and many host planets that are potentially habitable. However, their extreme magnetic activity (e.g. flares and auroras) is not well understood and may prove detrimental to the formation of life on these planets. The most extreme magnetic events on the Sun show evidence for ion acceleration and gamma-ray emission, but the Sun is, so far, the only isolated star we have detected at GeV