

ISSI-BJ Workshop on *Space-based Stellar Astrophysics in the Ultraviolet*

Online participation:

<https://us06web.zoom.us/j/89933002063?pwd=IAMVSptYwAzYYWGB9cUAXHJ4JfATob.1>

(Meeting ID: 899 3300 2063; password: 422293)

Monday 14 April 2025			
<u>1. Morning session</u>		Chair: Richard de Grijs	
09:00–09:10	Richard de Grijs (Macquarie University, Australia; ISSI-BJ)	Welcome and Introduction	
09:10–09:30	Xianying Bai (National Astronomical Observatories, Chinese Academy of Sciences, China)	The Solar Upper Transition Region Imager (SUTRI) Onboard the <i>SATech-01</i> Satellite	
09:30–10:00	Yijun Hou (National Astronomical Observatories, Chinese Academy of Sciences, China)	(E)UV Observations of Various Activities in Sunspot Light bridges	
10:00–10:30	Coffee break		
10:30–10:50	Li Feng (Purple Mountain Observatory, China)	Understanding Solar Eruptions with observations in the UV Lyman- α window	
10:50–11:20	Peng-Fei Chen (Purple Mountain Observatory, China)	UV Spectral Signatures of Solar/Stellar Filament Eruptions	
11:20–11:50	Hui Tian (Peking University, China)	EUV observations of stellar coronal activity	
11:50–13:00	Lunch at the NSSC cafeteria		
<u>2. Afternoon session</u>		Chair: Ana I. Gomez de Castro	
13:00–13:30	Xiaoting Fu (Purple Mountain Observatory, China)	Stellar modelling with the help of the UV high-resolution stellar spectral library	
13:30–14:00	Gajendra Pandey (Indian Institute of Astrophysics, India)	High-resolution spectroscopy of hot stars in UV	
14:00–14:30	Durgesh Tripathi (IUCAA, Pune, India)	The Sun in the Near Ultraviolet	online
14:30–15:00	Tea break		
15:00–15:30	Yu Xu (Peking University, China)	Solar and Stellar CMEs in EUV spectroscopy: Observations and Simulations	YS
15:30–16:00	Louise Harra (PMOD/WRC and ETH-Zürich, Switzerland)	Review of the Sun at UV/EUV wavelengths	online
16:00–16:30	Frédéric Auchère (Institut d'Astrophysique Spatiale, France)	Extreme ultraviolet observations of the Sun from space: a review and future prospects	online
16:30–17:00	Giulio Del Zanna (University of Cambridge, UK)	Modelling the chromosphere/transition regions of the Sun and Stars and review of spectral diagnostics	online

Tuesday 15 April 2025			
3. <u>Morning session</u>		Chair: Xiaoting Fu	
09:00–09:20	Firoza Sutaria (Indian Institute of Astrophysics, India)	A UV imaging study of the Cygnus loop	
09:20–09:40	Matti Dorsch (University of Potsdam, Germany)	Far-UV spectroscopy of hot subdwarf stars: nucleosynthesis and binary stellar evolution	YS
09:40–10:10	Stephan Geier (University of Potsdam, Germany)	Multi-band surveys of hot evolved stars	
10:10–10:30	Coffee break		
10:30–11:00	Nicole Reindl (Heidelberg University, Germany)	On the importance of UV spectroscopy for the study of hot (pre-)white dwarfs	
11:00–11:30	Sheng-Bang Qian (Yunnan University, China)	Investigations of Gravitational Radiation and Triplicity of sdOB-type binaries based on space-based data	
11:30–12:00	Kevin France (University of Colorado, USA)	UV and X-ray Observations of Rocky Planet Host Stars: Inputs for Atmospheric Photochemistry and Escape Calculations	
12:00–12:10	Group photo in front of NSSC Building A		
12:10–13:20	Lunch at the NSSC cafeteria		
4. <u>Afternoon session</u>		Chair: Martin Barstow	
13:20–13:50	Sivarani Thirupathi (Indian Institute of Astrophysics, India)	Stellar Archaeology in the UV	online
13:50–14:10	Ada Canet (Universidad Complutense de Madrid, Spain)	Star–planet interactions at ultraviolet wavelengths: Prospects of detection	YS
14:10–14:40	Yong Zhang (Sun Yat-sen University, China)	Does the electron energy in planetary nebulae follow κ (kappa) or Maxwellian distributions?	
14:40–15:10	Tea break		
15:10–15:35	Deepak Chahal (Macquarie University, Australia)	Photometric Activity Cycles in Fast-rotating stars: Revisiting the reality of stellar activity cycle branches	YS
15:35–16:00	Xuan Fang (National Astronomical Observatories, Chinese Academy of Sciences, China)	<i>Hubble Space Telescope</i> /STIS UV Spectroscopy of Galactic Planetary Nebulae	
16:00–16:30	Giovanna Tinetti (UCL, Blue Skies Space Ltd, UK)	Monitoring and understanding stellar flares and activity	
16:30–17:00	Coralie Neiner (Paris Observatory, France)	UV spectropolarimetry to study stellar magnetospheres	online
18:00–20:00	Workshop dinner at the Park Plaza Hotel		

Wednesday 16 April 2025			
5. <u>Morning session</u>		Chair: Samyaday Choudhury	
09:00–09:30	Chengyuan Li (Sun Yat-sen University, China)	Stellar populations in star clusters	
09:30–10:00	Alexandre Vazdekis (Instituto de Astrofísica de Canarias, Spain)	Modelling the integrated light of the stellar populations in the NUV and FUV spectral ranges	
09:30–10:00	Li Ji (Purple Mountain Observatory, China)	High-energy spectroscopy for stellar activities	
10:30–11:00	Coffee break		
11:00–11:30	Martin Barstow (University of Leicester, UK)	Future missions in the EUV and UV	
11:30–12:00	Ana I. Gomez de Castro (Universidad Complutense de Madrid, Spain)	The life cycle of planetary systems – new insights from present and future UV instrumentation	
12:00–13:00	Lunch at the NSSC cafeteria		
Free afternoon			

Thursday 17 April 2025			
6. <u>Morning session</u>		Chair: Nicole Reindl	
09:00–09:30	Li Wang (Sun Yat-sen University, China)	Unveiling Bifurcated Blue Straggler Sequences in NGC	YS
09:30–09:55	Snehalata Sahu (University of Warwick, UK)	GlobULeS: Globular cluster UVIT legacy survey with <i>Astrosat</i>	
09:55–10:20	Sipra Hota (Indian Institute of Astrophysics, India)	Kinematics and Morphology of the Young Population in the Small Magellanic Cloud: Insights from UVIT	YS
10:20–10:50	Coffee break		
10:50–11:20	Kaushar Vaidya (Birla Institute of Technology and Science Pilani, India)	A UV-guided Study of Blue Straggler Stars of Open Clusters and Galactic Fields	
11:20–11:50	Norbert Werner (Masaryk University, Czech Republic)	<i>QUVik</i> – Quick Ultra-Violet Kilonova Surveyor	online
11:50–13:00	Lunch at the NSSC cafeteria		
7. <u>Afternoon session</u>		Chair: Hui Tian	
13:00–13:30	Vikrant Vinayak Jadhav (University of Bonn, Germany)	Impact of UV imaging on accurate characterization of binary systems	
13:30–14:00	Shingo Kameda (Rikkuo University, Japan)	<i>LAPYUTA</i> mission – a 60 cm FUV space telescope	
14:00–14:30	Quentin Parker (University of Hong Kong, Hong Kong SAR)	Science from the concept for a new UV Space Astronomy Project initiative between HKU and relevant CAS institutes	
14:30–15:00	Tea break		
15:00–15:30	Benjamin Wilcock (Blue Skies Space Ltd, UK)	<i>Mauve</i> , a small ultraviolet and visible spectrophotometry satellite and its applications in time-domain stellar spectroscopy	
15:30–16:00	Andrew Battisti (ICRAR and Australian National University, Australia)	Ultraviolet Extinction Sky Survey (<i>UVES</i>): A mission concept for probing the interstellar medium in the Milky Way and Local Group galaxies	
16:00–16:30	Annapurni Subramaniam (Indian Institute of Astrophysics, India)	A summary of star cluster studies using UVIT on <i>AstroSat</i> 2173: Insights from Binary Evolution	online
16:30–17:00	Samyaday Choudhury (Ahmedabad University, India)	Studying extragalactic star clusters and star formation using UVIT/ <i>AstroSat</i>	

Friday 18 April 2025			
8. <u>Morning session</u>		Chair: Li Ji	
09:00– 09:30	Mikhail Sachkov (Institute of Astronomy, RAS, Russia)	The <i>SPECTR-UF</i> mission	
09:30– 10:00	Zhaosheng Li (Xiangtan University, China)	Soft X-ray spectroscopy of thermonuclear bursts	
10:00– 10:30	Chao Liu (National Astronomical Observatories, Chinese Academy of Sciences, China)	What can the Chinese Space Station Telescope achieve by combining UV with optical bands?	
10:30– 11:00	Coffee break		
11:00– 11:30	Gaurav Singh (National Astronomical Observatories, Chinese Academy of Sciences, China)	Investigating the factors leading to delay in the dynamical segregation of dense stellar systems using blue straggler stars	
11:30– 12:00	Jifeng Liu (National Astronomical Observatories, Chinese Academy of Sciences, China)	The GOTTA Project: Global Open Transient Telescope Array to probe the dynamical universe	
12:00– 13:20	Lunch at the NSSC cafeteria		
9. <u>Afternoon session</u>		Chair: Richard de Grijs	
13:20– 14:00	Discussion panel	Discussion session	
14:00– 15:00	Richard de Grijs (coordination)	Preparation for the drafting of the review papers	