
Third Announcement of the 11th workshop on

ARMAGH 23
sdOB | **Hot Subdwarf Stars**
and Related Objects

2023 September 11 - 15
Armagh Observatory and Planetarium,
Armagh, Northern Ireland



Website: www.armagh.space/sdob11
Email: sdob11@armagh.ac.uk
2023 August 18

Dear Colleague,

Thank you for registering for sdOB11. In this announcement you will find important information about the conference programme, and the preparation and submission of talks and posters. **If you have not already paid your registration fee, please do so as soon as possible.** Also, please let us know (sdob11@armagh.ac.uk) if you intend to participate remotely.

The second announcement can still be found at <https://www.armagh.space/meetings-conferences/sdob11>. It contains details about the registration process, financial support, travel and accommodation. Please visit the conference webpage for further information.

We hope you have a safe and comfortable journey to Armagh. We are continuing to improve our travel advice for delegates travelling to Armagh, so if you have difficulties or recommendations, please let us know.

On behalf of both the scientific and local organizing committees, we are looking forward to welcoming you to Armagh, whether in person or via a zoom link.

Yours sincerely
Simon Jeffery



Deadlines

Poster pdf submission: September 1st.

Recorded talk submission: September 8th.

Talk pdf submission: 24 hours before presentation due.

Tickets for Additional Tours: TBA

Science Programme

Programme — The latest draft of the science programme is attached to this announcement. There will be an allowance of 20 minutes per talk, plus circa 10 minutes per session for questions. There will be opportunities within the relevant session for poster presenters to give lightning talks (2 slides - 2 minutes). Chairs for talk and discussion sessions are being finalised.

Remote participation — whilst strongly encouraging in person participation, it is recognised that some participants cannot be physically present. All sessions will be streamed on Zoom. Session links will be advised closer to the time of the meeting.

Talks — to facilitate streaming all talks should be made available in pdf format. They should be sent to sdob11@armagh.ac.uk either as an attachment or as a link to a file share site. These should arrive for verification and collation at least one day before the presentation is due.

Remote Talks — to be presented by remote participants must be pre-recorded in mp4 format — and sent to sdob11@armagh.ac.uk either as an attachment or as a link to a file share site. These should preferably arrive for verification by Friday 8 September.

Posters — will be displayed **as e-posters** on 3 x 1.27m High Definition touchscreen LCD TV displays (**landscape aspect ratio 16:9**) around the exhibition areas. They must be submitted as PDF files by Friday 1st September by email to sdob11@armagh.ac.uk. They will also be made available on the Conference website. Slides for the lightning talks should follow the same instructions as regular talks above.

Recording — all talks will be recorded and made available to registered delegates for a period after the workshop has ended. If you do NOT wish your talk to be recorded you must advise the organisers at the same time as submitting your slides. Otherwise, permission will be assumed.

Student poster/talk prizes — it is hoped to award a modest prize for the best student talk and the best student poster.

Proceedings — there are plans to publish proceedings informally as a single e-volume. More information will be provided during the workshop.

Policies

AOP operates policies designed to safeguard employees, visitors and members of the public. Attention is drawn to the **Privacy Notice** (<https://www.armagh.space/privacy-policy>), which describes how we process your personal data in accordance with our legal obligations, and to the **code of conduct** which has been agreed for all meetings and conferences held at the Armagh Observatory and Planetarium. This underlines the principle that “AOP values the participation of each member of the community surrounding the topic of our AOP conferences and want all attendees to have an enjoyable and fulfilling experience. Accordingly, all attendees are expected to show respect and courtesy to other attendees throughout the conference and at all conference events.” Copies of the full policy will be available at the registration desk and at <https://www.armagh.space/meetings-conferences/sdob11>.

Social Programme

The main social programme for the conference is as follows:

Time and Date	Place	Event
19:00 Sunday 10 September	Spires Bar, Armagh City Hotel	Welcome Reception
17:00 Monday 11 September	AOP	Observatory Tour and 'Pizza Night'
17:30 - 18:30 Tuesday 12 September	Meet at Planetarium	Walking Tour of Armagh
13:00 - 17:00 Wednesday 13 September	Bus departs AOP for Navan Center	Lunch at Navan Centre, Iron-Age experience, Visit to Navan Hill Fort, Talk by Site Archæologist, Dr Paddy Gleeson.
19:00 Thursday 14 September	Armagh City Hotel	Conference Dinner (Additional cost £50 per head , tickets still available on conference website)

Your attention is drawn to two additional events for which additional tickets will be available on the conference website by Friday 18 August, where final prices will also be shown (the code is **CONFAOP23**). Interest expressed through the registration for both events was strong but places are limited, Please book early to avoid disappointment.

Time and Date	Event	Programme	Cost (*)
09:00 - 15:30 Saturday 9 September	North Coast Tour (*)	09:00 - depart Armagh City Hotel 10:50 - Giant's Causeway 12:30 - Lunch - Bushmills 13:30 - Visit to Dunluce Castle 15:30 - arrive Armagh City Hotel	£50 includes entrance to Causeway Centre and Dunluce Castle but NOT lunch.
15:00 Friday 15 September	Long Meadow Cider	15:00 - depart 15:30 - 16:30 — tour and tasting 17:00 - return	£25
		* details and times subject to confirmation	

Organising Committees

Scientific: Simon Jeffery (chair), Valerie Van Grootel, Stéphane Charpinet, Zhanwen Han, Maja Vuckovic, Stephan Geier, Annalisa Calamida, Thomas Kupfer, Brad Barlow, Veronika Schaffenroth, JJ Hermes, Holly Preece, Andrzej Baran

Local: Marc Sarzi, Heather Alexander, Simon Jeffery, Gavin Ramsay, Sinead Mackle, Laura Scott, Aileen McKee, Ceara Ryan

V 0.2	Draft Programme	11.8.23
Presenter	Title	Session
	TALKS: 20 minutes	
	POSTER LIGHTNING TALKS: 2 slides: 2 minutes	
	QUESTIONS: 5 - 10 minutes per session	
	DISCUSSION: 40 - 60 minutes	
	<i>09:00 -- 09:30 REGISTRATION</i>	
MONDAY	09:30 -- 11:00. Chair: Stephan Geier	SURVEYS
Michael+Simon+Heather	WELCOME + INTRODUCTION	
Ingrid Pelisoli	Hot subdwarfs with 4MOST: what to expect	Surveys
Harry Dawson	Towards characterising the 500 pc volume-limited sample of hot subluminoous stars	Surveys
Steven Parsons	The white dwarf binary pathways survey	Surveys
	<i>11:00 - 11:30 TEA/COFFEE + REGISTRATION</i>	
MONDAY	11:30 - 13:00. Chair: Stephan Geier	SURVEYS
Ralf Napiwotzki	The origin of subdwarf B stars II	Surveys
Thomas Kupfer	Search for photometric variability in the catalog of hot subdwarf stars	Surveys
Keyu Xing	Flares in hot subdwarf and white dwarf stars from the 1-4 cycles of TESS photometry	Surveys
Jiangdan Li	Hot subdwarfs candidates surrounded by remnant circumbinary material from common envelope phase	Surveys
	<i>13:00 - 14:00 LUNCH</i>	
MONDAY	14:00 - 15:30. Chair: Roy Østensen	SURVEYS
	POSTERS (S1, S2, S3)	
Marilyn Latour	Peering at the Blue Horizontal Branch stars in the core of Omega Centauri and NGC 6752	Clusters
Oliver Steppohn	Blue Horizontal Branch Stars: Identification and Kinematics	Surveys
Rick Culpán	Comparing rates of binarity in blue horizontal-branch and extended horizontal-branch objects	Surveys
	<i>15:30 - 16:00 TEA/COFFEE</i>	
MONDAY	16:00 - 16:45. Chair: Roy Østensen	SURVEYS
Simon Jeffery	Highlights from the SALT survey of helium-rich hot subdwarfs	Surveys
Larissa Antunes Amaral	Search for new variable Extremely-low mass white dwarf stars	Surveys / ELMS
	<i>17:00 OBSERVATORY TOUR AND 19:00 RECEPTION AT AOP</i>	
TUESDAY	09:30 -- 11:00. Chair: TBA	EVOLUTION
Zhanwen Han	Understanding Common Envelope Evolution in sdB Binaries	Evolution
Nicolas Rodriguez Segovia	Revisiting sub-dwarf B star formation channels with the COMPAS binary population synthesis code	Evolution
	DISCUSSION (SURVEYS)	
	<i>11:00 - 11:30 TEA/COFFEE</i>	
TUESDAY	11:30 - 13:00. Chair: TBA	EVOLUTION
Philipp Podsiadlowski	The Spin-Down of White Dwarf Mergers	Evolution

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Presenter	Title	Session
Eduardo Alfredo Arancibia Rojas	The mass range of hot subdwarf B stars from MESA simulations	Evolution
Zhenwei Li	A new route to massive hot subdwarfs: common envelope ejection from asymptotic giant branch stars	Evolution
Xuefei Chen	The theoretical progress and recent observations on extremely low-mass white dwarfs	Evolution / ELMs
	<i>13:00 - 14:00 LUNCH</i>	
TUESDAY	14:00 - 15:10. Chair: Conor Byrne	EVOLUTION
	<i>(PARALLEL WITH PUBLIC TALK on THE EXCITING LIVES OF DOUBLE STARS by S GEIER)</i>	
Holly Preece	sdOB stars formed from hierarchical triples and their properties	Evolution / Triples
	POSTER (E1)	
	DISCUSSION (EVOLUTION)	
	<i>15:10 - 15:40 TEA/COFFEE</i>	
TUESDAY	15:40 - 16:50. Chair: Conor Byrne	RUNAWAYS
Uli Heber	The fastest hot subdwarf stars	High-velocity subdwarfs
Aakash Bhat	From main sequence runaways to subluminous hypervelocity stars: a multi-modal narrative of escape	High-velocity subdwarfs
Evan Bauer	The Fastest Hypervelocity Stars and Hot Subdwarfs	High-velocity subdwarfs
	<i>17:00 WALKING TOUR OF ARMAGH</i>	
WEDNESDAY	09:30 -- 11:00. Chair: TBA	BINARIES
Brad Barlow	Surfing the (Sine) Waves: Fourier Analyses of Hot Subdwarf Binaries Observed with TESS	Binaries
Edward Snowden	Helium-rich binary subdwarf candidates identified with SALT and TESS	Binaries
Eric Stringer	Detailed Follow-up Studies of Three Ultracompact sdB Binaries	Binaries
Bryce Smith	EC 23257-5443: An Anomalous Reflection Effect Binary with Phase-Dependent Emission	Binaries
	<i>11:00 - 11:30 TEA/COFFEE</i>	
WEDNESDAY	11:30 - 12:30. Chair: TBA	BINARIES
	POSTERS (B1, B2, B3)	
Stephan Geier	Gaia strikes again - A new class of hot subdwarf binaries revealed by astrometry	Binaries
Luqian Wang	Detection and Characterization of sdO companions of massive stars	Binaries
	<i>13:00 - 17:00 EXCURSION TO NAVAN FORT (INCLUDING LUNCH)</i>	
THURSDAY	09:30 -- 11:00. Chair: Ingrid Pelisoli	BINARIES
Veronika Schaffenroth	Hot subdwarf binaries at intermediate periods	Binaries
Isaac D. Lopez	Follow-up Observations of the Fastest Known HW Vir	Binaries
Ozgur Basturk	PCEB Systems Displaying Eclipse Timing Variations	Binaries

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Presenter	Title	Session
Kunal Prashant Deshmukh	Modelling the Double Detonation Supernova Progenitor CD -30 11223	Binaries
	<i>11:00 - 11:30 TEA/COFFEE</i>	
THURSDAY	11:30 - 13:00. Chair: Ingrid Pelisoli	BINARIES / PULSATION
	DISCUSSION (BINARIES + RUNAWAYS)	
Mike Reed	Another Year of Pulsation Progress - Balloon, TESS, and Kepler	Pulsation
Xiaoyu Ma	Amplitude and frequency variations in two pulsating sdB stars from K2 photometry	Pulsation
	<i>13:00 - 14:00 LUNCH</i>	
THURSDAY	14:00 - 15:30. Chair: Mike Reed	PULSATION
Conor Byrne	Binary evolution pathways of blue large-amplitude pulsators	BLAPs
Corey Bradshaw	An Investigation into the Properties and Evolutionary Status of Radial-Mode Hot-Subdwarf Pulsators and Blue Large-Amplitude Pulsators	BLAPs
Xiangcun Meng	BLAPs-the surviving companions of SNe Ia	BLAPs
Heran Xiong	Shell-helium-burning hot subdwarf B stars as candidates for Blue Large Amplitude Pulsators	BLAPs
	<i>15:30 - 16:00 TEA/COFFEE</i>	
THURSDAY	16:00 - 17:00. Chair: Mike Reed	PULSATION
	POSTERS (P1, P2)	
Valerie Van Grootel	Feige 48: a modern view	Pulsation
Weikai Zong	A preliminary and comprehensive view of mode variability in compact pulsators	Pulsation
	<i>19:00 CONFERENCE DINNER AT ARMAGH CITY HOTEL (£50 pp)</i>	
FRIDAY	09:30 -- 11:00. Chair: Marilyn Latour	PULSATION
Stéphane Charpinet	Probing the core helium burning phase with white dwarf and hot subdwarf pulsators	Pulsation
Wenchao Su	TIC 441725813 : A new bright hybrid sdB pulsator with strong differential radial rotation in close binary	Pulsation
	DISCUSSION (PULSATION)	
	<i>11:00 - 11:30 TEA/COFFEE</i>	
FRIDAY	11:30 - 13:00. Chair: Marilyn Latour	ATMO-SPHERES
Laura Scott	Modelling lead stratification in heavy metal subdwarf atmospheres	Atmospheres
Matti Dorsch	Connecting the dots: stellar parameters, binarity, and kinematics	Atmospheres
Semih Filiz	Spectral analysis of hot DA- and DAO-type white dwarfs	Atmospheres
	SUMMARY	
	<i>13:00 - 14:00 LUNCH</i>	
	<i>15:00 (OPTIONAL) TOUR TO LONG MEADOW CIDER COMPANY (ADDITIONAL COST)</i>	

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Presenter	Title	Session
POSTERS		
James Garbutt	White dwarf binaries in Gaia DR3 and their link to hot subdwarf systems	S1
Marilyn Latour	The Arizona-Montréal Spectroscopic Program: A glance at the MMT sample	S2
Asish Philip Monai	Understanding Extreme Helium Stars with Gaia	S3
Tahina Princy Ranaivomanana	Towards ensemble asteroseismology of hot subluminoous stars with MeerLICHT and BlackGEM	P1
Marilyn Latour (for Pawel P.)	New key results on BLAPs	P2
Uli Heber	Spectroscopic Analysis of the elipsoidal variable TIC 63208546	B1
Ozgur Basturk	Utilizing Romer Delay in Determining Mass Ratios of HW Vir-type Eclipsing Binaries through TESS Observations	B2
Kunal Deshmukh	The Curious Case of an Accreting Massive SdO Binary	B3
Abinaya Swaruba Rajamuthukumar	Explosions: Do they have a soft corner?	E1