100 Years of Supernova Science

Abstract book: Here

	MON	TUE	WED	THU	FRI
08.50 09.00	**Welcoming words** J. Larsson - A. Jerkstrand				
	Chair: Anders Jerkstrand	Chair: Thomas Janka	Chair: Josefin Larsson	Chair: Kate Maguire	Chair: Ariel Goobar
09.00 09.40	**THE HISTORY OF CLASSIFICATION IN THE SUPERNOVA ZOO** ***A. FILIPPENKO***	**NEUTRINOS AS UNIQUE SUPERNOVA MESSENGERS** ***I. TAMBORRA***	**SUPERNOVAE AS CHEMICAL LABORATORIES : DUST AND MOLECULES** ***I. DE LOOZE***	**UNDERSTANDING LIGHT CURVES AND SPECTRA OF SNe** ***K. MAEDA***	**THE ACCELERATING UNIVERSE : HOW DID WE GET HERE AND WHAT'S NEXT?** ***B. SCHMIDT***
09.40 09.55	Low Luminosity Type IIP Supernovae from ZTF Census of the Local Universe *K. Das*	Black Hole Supernovae in 2D and 3D: From Collapse to Shock Breakout *O. Eggenberger-Andersen*	Dust destruction by supernova remnants in a turbulent interstellar medium *T. Scheffler*	The landscape of CCSN progenitors and the late emergence of WR winds *A. Gilkis*	The tension in the tension: the Hubble constant from blue type Ia supernovae *C. Gall*
09.55 10.10	Origins of Ca-rich supernovae *C-G. Touchard-Paxton*	Systematic Progenitor and Explosion Parameters from Observations *I. Arcavi*	The JWST View of the Dynamic ISM with Thermal Echoes of Cas A *J. Jencson*	Exploring pre-supernova mass loss with modelling of double-peaked Type Ibc supernovae *R. Chiba*	Viewing the Hubble tension through a magnifying glass *S. Taubenberger*
10.10 10.25	SN 2021yfj - The First Member of a New Class of Si- and S-rich Supernovae S. Schulze	Winds, Bubbles, Disks and Binaries: nterpreting the Emission from Stripped-Envelope Supernovae which show Increasing X-ray and Radio Luminosity *V. Dwarkadas*	The metamorphosis of SN 1996cr into a supernova remnant *D. Patnaude*	3D NLTE Radiative Transfer for Supernovae in the Nebular Phase *B. van Baal*	Unveiling Two Branches behind Type Ia Supernovae with Machine Learning *K. Uno*
10.25 10.55	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
	Chair: Phillip Podsiadlowski	Chair: Ragnhild Lunnan	Chair: Evan O'Connor	Chair: Takashi Moriya	Chair: Peter Lundqvist
10.55 11.35	**SUPERNOVA 1987A** **A ROSETTA STONE FOR SUPERNOVA RESEARCH** ***C. FRANSSON***	**SUPERLUMINOUS SUPERNOVAE** **THE BRIGHTEST TRANSIENTS IN COSMOS** ***T-W. CHEN***	**THE CORE-COLLAPSE EXPLOSION MECHANISM: FOUNDATIONS AND STATUS** **T. JANKA**	**10.55-11.10** Statistical Investigation on Radio Supernovae with Markov Chain Monte Carlo Analysis *T. Matsuoka*	**EXPLODING WHITE DWARFS IN A NEW LIGHT: JWST's TRANSFORMATIVE MIR LEGACY BEGINS** ***L. KWOK***
11.35 11.50	The remarkable diversity of supernovae from interacting binary stars *E. Laplace*	Two hundred (plus) SLSNe: light curves, spectra and physics from the new public SLSN Catalog *M. Nicholl*	3D numerical study of magnetorotational effects on extreme core-collapse supernovae *L. Kovalenko*	**11.10-11.25** Nebular-Phase Spectra of Hydrogen-Poor Superluminous Supernovae *P. Blanchard*	Unveiling the progenitor demographics of Type Ia supernovae using their first to last photons *C. Liu*
11.50 12.05	Diversity in Hydrogen-rich Envelope Mass of Type II Supernovae *Q. Fang*	Type II Superluminous Supernova light curve characterization *P. Pessi*	Three-dimensional modeling of core-collapse supernovae *K. Nakamura*	**11.25-11.40** "Double-Acct" - the extraordinary double-peaked supernova, SN2020acct *C. Angus*	Type Ia Supernova Physics from Nebular-phase JWST Observations in the MIR *J. DerKacy*
12.05 12.20	The early-time light curves of type II and type IIb supernovae from the ATLAS survey *J. Anderson*	Chasing eruptive mass loss prior to superluminous supernovae *A. Gkini*	Long-time supernova simulations: Exploring different classes of (magnetized and rotating) progenitors *M. Gabler*	**11.40-11.55** Testing the Physics of Massive Stars and Stellar Explosions with LIGO *P. Podsialowski*	Type Ia supernovae from explosions of sub-Chandrasekhar-mass white dwarfs in double white dwarf binaries *K. Shen*
12.20 12.30	*8 flash talks* *Baer-Way, Terwel, Mandal,* *Grayling, Gangopadhyay, Ding, Wiston*	*6 flash talks* *Fakiola, Hu,* *Russeil, Sawada, Sheng, Tsalapatas*	*8 flash talks* *Umeda, Cornelius, Giudici, Gogilashvili,* *Sand-Hellman, Singh, Hall, Bronner*	*8 flash talks* *Zsiros, Callan, Sears, Ko,* *Kopsacheili, Taubenberger, LeBaron, Ghavamian*	
12.30 14	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
	Chair: Stephen Smartt	Chair: Jesper Sollerman		Chair: Dan Milisavjlevic	Chair: Seppo Mattila
14.00 14.15	Formation and Diagnostic Use of Carbon Lines in SESNe *S. Barmentloo*	**KNUT LUNDMARK** **THE DISCOVERER OF SUPERNOVAE** ***JOHAN KÄRNFELT***		**14.00-14.40** **X-ray Eyes on Supernova Remnants and Compact Objects:** **Past, Present, and the Multi-Messenger Future** ***S. SAFI-HARB***	Discovery of a Relativistic Stripped Envelope Type Ic-BL Supernova at z = 2.83 with JWST *M. Siebert*
14.15 14.30	Electron-capture supernovae Thermonuclear explosion or gravitational collapse? *A. Holas*				From Red Supergiants to Black Holes: Observational Constraints on Failed Supernovae from the Hubble Space Telescope *J. Pearson*
14.30 14.45	nchromatic Observations of Extreme Red Supergiant Explosic *W. Jacobson-Galán*	Using UV Supernova Observations to Map RSG Mass Loss from Quiescent to Outburst *A. Bostrom*		**14.40-14.55** After the Explosion: Shock Heating and Particle Acceleration in Supernova Remnants P. Slane	Disentangling the evolutionary paths of Supernova Remnants: observational evidence of (non) multi-wavelength emission *I. Leonidaki*
14.45 15.00	Variability and extreme reddening in the progenitor stars of Type II supernovae *C. Kilpatrick*	Binarity in massive star explosions *P. Chen*		**14.55-15.10** Constraints on circumstellar interaction and explosion mechanism from the remnants of thermonuclear SNe *C. Badenes*	The Most Distant Stellar Explosions with JWST *D. Coulter*
15.00 15.15	The Supernova Progenitor Luminosity Problem *E. Beasor*	Core-collapse supernovae as probes of the star-formation history of the Universe *S. Mattila*		**15.10-15.25** Tracing the Propagation of Shocks in the Equatorial Ring of SN 1987A Over Decades *C. Tegkelidis*	The High-redshift Transient Universe with JWST *A. Rest*
15.15 15.45	COFFEE BREAK	COFFEE BREAK		**CONFERENCE PHOTO** EXTENDED BREAK	Shadowing LSST: Extremely Early Supernova Discoveries in the Nearby Universe *D. Sand*
	Chair: Tea Temim	Chair: Fritz Röpke			
15.45 16.25	**SUPERNOVA REMNANTS** **A HISTORY OF PEEKING INSIDE EXPLODED STARS** ***D. MILISAVLJEVIC***	**THE DIVERSE FATES OF EXPLODING WHITE DWARFS** ***R. PAKMOR***		Chair: Dan Maoz **(session starts 18.00)**	
16.25 16.40	Detection of P, Cl, and K in Cassiopeia A with XRISM *K. Matsunaga*	Dynamics and stability of helium-rich detonation in ub-Chandrasekhar mass SNe Ia: a continuing trial to find the constraint via terrestrial cell-based theories and experiments *K. Iwata*		**18.00-18.15** Supernovae in the InfRared Avec Hubble (SIRAH): Survey Results and Cosmology *C. Larison*	**END OF CONFERENCE** **(15.30)**
16.40 16.55	Modelling the Remnant of a Magnetorotational Supernova *G. La Malfa*	SN 2023adsy -- a normal Type Ia Supernova at z=2.9, discovered by JWST *E. Regos*		**18.15-18.30** Non-LTE radiative transfer simulations: Improved agreement of the double detonation with normal Type Ia supernovae *C. Collins*	
16.55 17.10	Imaging the signature of type Ia supernova explosion mechanism a novel approach using optical IFS to study the reverse shocked ejecta *P. Das*	All known Type Ia supernova models fail to reproduce the observed luminosity-width correlation *D. Kushnir*		**18.30-18.45** Do spectral classes hint at different progenitors? A look at 91T and Normal SN Ia with probabilistic transient tomography *W. Kerzendorf*	
17.30 19.00	**OBSERVATORY VISIT GROUP 1**	**OBSERVATORY VISIT GROUP 2**			
19.15 21.00	DINNER	DINNER		DINNER	

COLOR CODE:

- CCSN
- SLSN
- Dust, pol
- Ia SNe
- Remnants
- Surveys and instr.
- Cosmology
- Misc

FLASH TALKS (32):

Monday	
R. Baer-Way	A multiwavelength view of interaction in two core collapse supernovae revealing extreme
J. Terwel	Searching for late-time signals of SNe interacting with circumstellar material
S. Mandal	Imprints of thermonuclear supernova explosions hidden in their remnants: decoding
M. Grayling	BayeSN: Environmental dependence of SN Ia i-band secondary maximum
A. Gangopadhyay	The transitions in interacting supernovae
Z. Ding	A 3D Kinematic Reconstruction of the Crab Nebula That Includes the Northern Ejecta Jet
E. Wiston	Radio Observations of SN2012au - The Youngest Pulsar Wind Nebula Candidate
Tuesday	
C. Fakiola	On the isotopic yields of thermonuclear explosions in non-accreting progenitors
Y. Hu	SN 2021aaev: A Hydrogen-Rich Superluminous Supernova Exhibiting Intense Interaction
E. Russeil	Machine learning classification of superluminous supernovae candidates in big data
R. Sawada	Probing Pair-Instability Supernovae via 56Ni Decay Signatures
X. Sheng	Attention-based Data Pre-processing and Upsampling for Enhancing SLSN-I Identification
K. Tsalapatas	A thermonuclear supernova interacting with H- and He- deficient circumstellar material
Wednesday	
H. Umeda	Properties of the lowest-mass Fe-core collapse supernovae
M. Cornelius	Hunting for electron lepton number crossings in core-collapse supernovae
B. Giudici	Long-Term Hydrodynamic Simulations of Core-Collapse Supernovae from Red Supergiant
M. Gogilashvili	Impact of Flavor Evolution on Core-collapse Supernova Physics
W. Sand Hellman	Investigating the nearby stripped envelope SN2024ehs: Effects of macroscopic mixing
A. Singh	
S. Hall	Deriving Time-Dependent Supernova Luminosity Functions via Hierarchical Bayesian
V. Bronner	Pulsating Red Supergiants: A New Perspective on Type II Supernova Light Curve Diversity
Thursday	
S. Zsíros	The James Webb Space Telescope Captures the Dusty SN 2013ej
F. Callan	Including a Luminous Central Remnant in Radiative Transfer Simulations for Type Iax
H. Sears	Space-based Observations of Type Ia SNe at Very Late Times
T. Ko	Revealing the Unique Multi-Structural Features of a Historical Type Iax Supernova
M. Kopsacheili	Discovery of new optical and X-ray supernova remnants in nearby galaxies: Improved
G. Csoernyei (presented by S. Taubenberger)	SNe II the rescue: Determination of H0 based on SNe II in the Hubble flow
N. LeBaron	AT2024wpp in UV to NIR: The Unprecedented Evolution and Properties of a Luminous
P. Ghavamian	Electron-Ion Equilibration and Cosmic Ray Acceleration in two Balmer-Dominated SNRs