100 Years of Supernova Science

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	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: Dan Milisavjlevic	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**	**THE X-RAY VIEW OF SUPERNOVA REMNANTS AND THEIR COMPACT OBJECTS** ***S. SAFI-HARB***	**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*	After the Explosion: Shock Heating and Particle Acceleration in Supernova Remnants *P. Slane*	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*	Constraints on circumstellar interaction and explosion mechanism from the remnants of thermonuclear SNe *C. Badenes*	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*	Tracing the Propagation of Shocks in the Equatorial Ring of SN 1987A Over Decades *C. Tegkelidis*	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, Alford, Mandal,* *Grayling, Gangopadhyay, Ding, Wiston*	*8 flash talks* *Arias, Fakiola, Safi-Harb, 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: Takashi Moriya	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 KÄRNFELDT***		Statistical Investigation on Radio Supernovae with Markov Chain Monte Carlo Analysis *T. Matsuoka*	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*			Nebular-Phase Spectra of Hydrogen-Poor Superluminous Supernovae *P. Blanchard*	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*		"Double-Acct" - the extraordinary double-peaked supernova, SN2020acct *C. Angus*	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*		Testing the Physics of Massive Stars and Stellar Explosions with LIGO *P. Podsialowski*	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*			The High-redshift Transient Universe with JWST *A. Rest*
15.15 15.45	COFFEE BREAK	COFFEE BREAK		**CONFERENCE PHOTO** EXTENDED BREAK (1h 25 min)	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 16.25)	
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*		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*		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*		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):

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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
J. Alford	What can Pulsar Wind Nebulae Teach us about Supernova Remnants?
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	
M. Arias	Fantastic Pevatrons and where to find them
C. Fakiola	On the isotopic yields of thermonuclear explosions in non-accreting progenitors
S. Safi-Harb	The search for continuous gravitational waves from young supernova remnants (SNRs) in
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
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