

Fifty-One Ergs 2019

An International Conference on the Physics
and Observations of Supernovae and
Supernova Remnants

May 20th - 24th 2019

Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday	
8:30	Welcome address					
8:45	Georges Meynet	Dario Carbone	Laura Chomiuk	JJ Eldridge	Tea Temim	
9:00						
9:15	Sung-Chul Yoon	Rodrigo Fernandez	Jordi Jose	Eva Laplace	Salvatore Orlando	
9:30		Paul Duffell		Gaston Folatelli		
9:45	Mojgan Aghakhanloo	Steven Fahlman	Sumner Starrfield	Ryosuke Hirai	Samayra Straal	
10:00	Diego López-Cámara	Chad Hanna	Kojiro Kawana	Mariangelly Diaz-Rodriguez	Don Warren	
10:15	Susanna Vergani	break	break	Avishai Gilkis	break	
10:30	poster ads (5-10)			break		break
10:45	break			break		break
11:00		Rosalba Perna	Ashley Ruitter		Om Sharam Salafia	
11:15	Albino Perego			Anders Jerkstrand		
11:30		Paolo D'Avanzo	Hiroya Yamaguchi		Kate Alexander	
11:45	Katerina Chatziioannou	Tyler Parsotan		Miho Ishigaki	Chris Irwin	
12:00		Hannah Klion	Ken Shen		Manos Chatzopoulos	
12:15	Kenta Kiuchi	Ore Gottlieb	Nahliel Wygoda	Samaporn Tinyanont	Conor Omand	
12:30	poster ads (5-10)				Closing remarks	
12:45	lunch	lunch	lunch	lunch		
1:00						
1:15						
1:30						
1:45						
2:00						
2:00	Avishay Gal-Yam	Thomas Janka	Melina Bersten	Tuguldur Sukhbold		
2:15						
2:30	Mansi Kaslival	Tomoya Takiwaki	Francisco Forster	Charlie Kilpatrick		
2:45		Quintin Mabanta		Justyn Maund		
3:00	Deanne Coppejans	Sarah Gossan	Athira Menon	Ben Davies		
3:15	Emmanouela Paraskeva	Shunsaku Horiuchi	Eric Lentz	Asier Castrillo Varona		
3:30	Ashley Villar	MacKenzie Warren		Manos Zapartas		
3:45	poster ads (5-10)	break	break	break		
4:00	break		break			
4:15	break		Lars Bildsten			
4:30	Jennifer Barnes	Panel discussion		Debate		
4:45			Jennifer Andrews			
5:00	Sherwood Richers		Melissa Shahbandeh			
5:15						
5:30	Xilu Wang		Ioana Boian			
5:45	Sanjana Curtis					
6:00	poster ads (5-10)					
6:15	Posters and Reception		Dinner			
6:30						
6:45						
7:00						
		Public Talk				

Monday, May 20th

7:45	Registration	in the hearth
8:30	John Blondin	Welcome address
8:45	Georges Meynet	Angular momentum transport processes in stars
9:15	Sung-Chul Yoon	Issues on the evolution and properties of stripped-envelope supernova progenitors
9:45	Mojgan Aghakhanloo	Using Gaia to constrain late-stage evolution of massive stars
10:00	Diego López-Cámara	How self-regulating jets may play a key role during the common-envelope phase
10:15	Susanna Vergani	Host properties of long GRBs, SLSNe and SNe Ic-BL: implications for progenitors
10:30	break	refreshments available in the hearth
11:15	Albino Perego	Modelling of binary neutron star mergers and of their kilonovae
11:45	Katerina Chatziioannou	Studying neutron stars with gravitational waves
12:15	Kenta Kiuchi	Revisiting on the lower bound of tidal deformability constraint derived by AT 2017gfo
12:30	lunch	food available in the hearth
2:00	Avishay Gal-Yam	New observations of infant SN explosions from ZTF
2:30	Mansi Kaslival	The Dynamic Infrared Sky
3:00	Deanne Coppejans	Multi-wavelength studies of fast-evolving blue optical transients
3:15	Emmanouela Paraskeva	Early high-cadence observations of supernovae: revealing features of variability and identifying their diversity
3:30	Ashley Villar	CCSNe studies in the age of LSST
3:45	break	refreshments available in the hearth
4:30	Jennifer Barnes	Kilonovae and r-process nucleosynthesis
5:00	Sherwood Richers	Neutrino quantum kinetics in compact objects
5:30	Xilu Wang	Sandblasting the r-process: spallation of the r-process nuclei ejected from a NS-NS event
5:45	Sanjana Curtis	Examining the treatment of neutrino-matter interactions in neutron star merger simulations
6:00	Posters and reception	in the hearth

Tuesday, May 21st

8:45	Dario Carbone	Multi-messenger exploration of the transient radio sky: GW170817 and the future
9:15	Rodrigo Fernandez	Long-term GRMHD simulations of neutron star merger accretion disks
9:30	Paul Duffell	Jet dynamics in compact object mergers
9:45	Steven Fahlman	HMNS disk outflows and the blue kilonova from GW1701817
10:00	Chad Hanna	Advanced LIGO's third observing run
10:15	break	refreshments available in the hearth
11:00	Rosalba Perna	Electromagnetic counterparts from mergers of compact object binaries
11:30	Paolo D'Avanzo	The evolution of the afterglow of GW 170817 / GRB 170817A: evidence for a structured relativistic jet
11:45	Tyler Parsotan	Numerical simulations of the dynamics and radiative properties of gamma-ray burst jets
12:00	Hannah Klion	Effects of jet-ejecta interaction on kilonova light curves
12:15	Ore Gottlieb	What have we learnt from the EM signals in GW170817?
12:30	lunch	food available in the hearth
2:00	Thomas Janka	3D Core-collapse Supernova Modeling: Where do we Stand?
2:30	Tomoya Takiwaki	Neutrino radiation hydrodynamic simulation of an ultra-stripped Type Ic supernova
2:45	Quintin Mabanta	Convection-aided explosions in one-dimensional core-collapse supernova simulations
3:00	Sarah Gossan	On wave heating from protoneutron star convection and the core-collapse supernova explosion mechanism
3:15	Shunsaku Horiuchi	Diffuse supernova neutrino background from extensive core-collapse simulations
3:30	MacKenzie Warren	Correlated multi-messenger signals from the landscape of core-collapse supernovae
3:45	break	refreshments available in the hearth
4:30	Panel Discussion	<i>The future of LIGO/Virgo and Electromagnetic follow-ups</i> Kate Alexander, Kenta Kiuchi, Chad Hanna, Paolo D'Avanzo
7:00	Public Talk	<i>Cosmic Endgames:</i> JJ Eldridge & Katie Mack Riddick Hall 301

Wednesday, May 22nd

8:45	Laura Chomiuk	A shocking shift in paradigm for classical novae
9:15	Jordi Jose	Classical novae, recurrent novae, and the mass of the underlying white dwarf
9:45	Sumner Starrfield	Classical nova explosions: SN Ia progenitors and lithium factories
10:00	Kojiro Kawana	Emission from thermonuclear explosions in white dwarf TDEs
10:15	break	refreshments available in the hearth
11:00	Ashley Ruiter	SN Ia subclasses and progenitor origin
11:30	Hiroya Yamaguchi	X-ray view of Type Ia supernova remnants
12:00	Ken Shen	Confirmation of the D6 Type Ia supernova scenario with hypervelocity white dwarfs in Gaia DR2
12:15	Nahliel Wygoda	The physical width-luminosity relation(s) for type Ia supernovae favor sub-Chandrasekhar and collision models
12:30	lunch	food available in the hearth
2:00	Melina Bersten	Hydrodynamical models of core-collapse supernovae and shock breakout
2:30	Francisco Forster	Shock breakout delay due to circumstellar material seen in most SNe II
3:00	Athira Menon	The explosion of blue supergiants: SN1987A and other peculiar Type II supernovae
3:15	Eric Lentz	Core-collapse supernova models with Chimera
3:30	break	refreshments available in the hearth
4:15	Lars Bildsten	Type IIP supernova: inferring explosion energies and ejecta masses
4:45	Jennifer Andrews	Observations of a luminous asymmetric Type II SN from 1 - 400 days post-explosion
5:15	Melissa Shahbandeh	Near-infrared spectroscopy of stripped envelope core-collapse supernovae
5:45	Ioana Boian	Predictions of early-time spectroscopic properties of core-collapse supernovae and impostors
6:30	Dinner	Gregg Museum of Art, Hillsborough St

Thursday, May 23th

8:45	JJ Eldridge	A double look at supernovae with BPASS
9:15	Eva Laplace	The size of stripped-envelope supernovae progenitors and its impact on gravitational waves events
9:30	Gaston Folatelli	Progenitors of stripped-envelope supernovae
9:45	Ryosuke Hirai	The appearance of companion stars after supernova in binaries
10:00	Mariangelly Diaz-Rodriguez	Progenitor mass distribution for core-collapse supernova remnants
10:15	Avishai Gilkis	Leftover hydrogen in stripped massive stars
10:30	break	refreshments available in the hearth
11:15	Anders Jerkstrand	Nucleosynthesis yields and progenitor constraints from nebular-phase supernova spectra
11:45	Miho Ishigaki	Element production by supernovae across the cosmic time probed by metal-poor stars
12:15	Samaporn Tinyanont	First silicate dust detection in an interacting SN 2014C
12:30	lunch	food available in the hearth
2:00	Tuguldur Sukhbold	Missing red supergiants and carbon burning
2:30	Charlie Kilpatrick	The population of Type II supernova progenitor stars with new mid-infrared limits
2:45	Justyn Maund	Exploring the progenitors of Type Ibc supernovae using resolved stellar populations
3:00	Ben Davies	What red supergiants do before they die
3:15	Asier Castrillo Varona	Supernova rate statistics in nearby galaxies from integral-field spectroscopy data
3:30	Manos Zapartas	Binary stars as progenitors of hydrogen-rich, core-collapse supernovae
3:45	break	refreshments available in the hearth
4:30	Debate	<i>The Red Supergiant Problem</i> Shunsaku Horiuchi vs Ben Davies

Friday, May 24th

8:45	Tea Temim	Progenitor and explosion properties of core-collapse supernova remnants
9:15	Salvatore Orlando	Evolving core-collapse supernovae to supernova remnants through 3D MHD simulations
9:45	Samayra Straal	What do pulsar wind nebulae tell us about supernovae?
10:00	Don Warren	The (missing) link between SNe and SNRs
10:15	break	refreshments available in the hearth
11:00	Om Sharan Salafia	Punching through the diversity of gamma-ray burst jets
11:30	Kate Alexander	New insights into engine-driven stellar explosions from GRB 161219B
11:45	Chris Irwin	The propagation of choked relativistic jets in power-law external media
12:00	Manos Chatzopoulos	Synthetic spectra of pair-instability supernovae in 3D
12:15	Conor Omand	Submillimetre constraints on the pulsar-driven supernova model
12:30	Someone Distinguished	Closing Remarks

Posters

- 1) Iminhaji Ablimit Evolution of Magnetized White Dwarf Binaries to Type Ia Supernovae
- 2) Denis Leahy Models for Galactic supernova remnants in the VGPS survey
- 3) Denis Leahy Constructing models for supernova remnant evolution using numerical simulations
- 4) Akihiro Suzuki Radiation hydrodynamic simulations of supernova ejecta interacting with circum-stellar disks
- 5) Takei Yuki Constructing a Light Curve Model for Interaction-Powered Supernovae Using Radiative Transfer Simulations
- 7) Leonardo Enrique García García The evolution of a relativistic and collimated jet through a magnetized medium
- 8) Toshiki Sato The Origin of the X-ray clumpy structures in a Type Ia supernova remnant
- 9) Seong Hyun Park Effects of the envelope structure of cool supergiant progenitors on the early-time light curves of Type IIb supernovae
- 10) Takashi Moriya Circumstellar properties of Type Ia supernovae with helium star donors
- 11) Dieter Hartmann The Cosmic Neutrino Background
- 12) Haruo Yasuda Time evolution of broadband non-thermal emission from supernova remnants in different circumstellar environments
- 13) Taiki Morinaga Collective neutrino flavor conversion vs. collisional decoherence under axisymmetric supernova models with full Boltzmann transport
- 14) Fernando Rivas Multi-dimensional vast network SNIa double detonations
- 15) Akira Harada Neutrino Distributions for a Rotating Core-collapse Supernova with a Boltzmann-neutrino-transport
- 16) Christopher Kolb Evolution of Type IIb supernovae in the binary circumstellar medium
- 17) Chinami Kato Effects of nucleon recoils for neutrino spectra in core-collapse supernovae

- 18) Abigail Polin Do sub-Chandrasekhar mass white dwarf explosions occur in nature?
- 19) Michael Sandoval Extending core-collapse supernova simulations: from the onset of explosion to shock breakout
- 20) Harim Jin Light curve and color evolution models with circumstellar medium for the Type Ic supernova LSQ14efd
- 21) Chloe Keeling-Sandoval The effects of stellar collapse on subsequent supernovae
- 22) Saku Iwata The diversity of young neutron stars determined by fallback accretion onto and energy deposition from the central object in supernova
- 23) Kazimierz Borkowski Infrared light echos of core-collapse supernovae in close binaries
- 24) Dean Townsley Making normal Type Ia supernovae with double detonations
- 25) Noah Wolfe Characterizing gravitational wave signals from core-collapse supernovae
- 26) Sam Flynn Detectability of Non-Standard Interactions in Supernovae Neutrino Signals
- 27) Yukari Ohtani Nebular emission line of core-collapse supernova exploded by neutrino heating mechanism
- 28) Luke Shingles Late-phase radiative transfer of Type Ia supernovae
- 29) Yongje Jeong The role of dense circumstellar medium in type IIb supernova light curves and implications for the progenitor of SN1993J
- 30) Roberto Iaconi Speaking with one voice: simulations and observations discuss the common envelope alpha parameter
- 31) Benjamin Wehmeyer Influence of key SN properties on Galactic Chemical Evolution
- 32) Ken'ichi Sugiura Linear Analysis of Shock Instability in Core-collapse Supernova
- 33) Payel Mukhopadhyay Neutrino-Driven winds and breezes in CC-Supernova- a fresh look