Workshop, 2019 Chicago, IL



http://kicp-workshops.uchicago.edu/2019SN-T/

WORKSHOP PROGRAM



The purpose of the workshop is to bring together the Midwest community interested in supernovae of all types, and transients in general, including kilonovae, fast radio bursts, TDEs, gamma-ray bursts etc. We will deal with all aspects of these objects, including the explosion mechanism, progenitors, evolution, nucleosynthesis, and radiation over all wavelengths from radio to gamma-rays.

Ample time would be given to students and postdocs, and significant time reserved for discussions.

Conference is organized by the Department of Astronomy and Astrophysics at the University of Chicago.

Organizing Committee

Laura Chomiuk Michigan State University **Sean Couch** Michigan State University **Vikram Dwarkadas** University of Chicago

Paul Ricker

University of Illinois Urbana-Champaign

Monday - February 25, 2019

Williay - February	25, 2017
8:05 AM - 9:00 AM	Breakfast
	SESSION 1 Chair: Vikram Dwarkadas
9:00 AM - 9:10 AM	John Carlstrom, Astronomy and Astrophysics, University of Chicago Welcome
9:10 AM - 9:20 AM	Vikram Dwarkadas, University of Chicago Introduction and Logistics
9:20 AM - 9:40 AM	Kate D Alexander, Northwestern University - CIERA Cosmic Extremes: Probing Energetic Transients with Radio Observations
9:40 AM - 9:55 AM	Jon Miller, University of Michigan X-ray Observations of Tidal Disruption Events
9:55 AM - 10:10 AM	Anya E Nugent, Northwestern University Analysis of A Short Gamma Ray Burst in an Old Galaxy Cluster
10:10 AM - 10:25 AM	Deanne L Coppejans, Northwestern University Multi-wavelength studies of Fast-evolving Blue Optical Transients
10:25 AM - 10:40 AM	Maxim Lyutikov, Purdue Transients following white dwarfs merger
10:40 AM - 11:00 AM	Coffee break
11:00 AM - 12:30 AM	SESSION 2 Chair: Sean Couch
11:00 AM - 11:20 AM	Tuguldur Sukhbold, The Ohio State University Life and Death of Massive Stars
11:20 AM - 11:35 AM	Wilson Ricks, University of Chicago Excavating the Explosion and Progenitor Properties of Type IIP Supernovae via Modelling of their Optical Lightcurves
11:35 AM - 11:50 AM	Giacomo Terreran, Northwestern University The "He-rich" Type Ic SN 2016coi and its massive progenitor
11:50 AM - 12:05 PM	Danny Milisavljevic, Purdue University Connecting Distant Supernovae with Nearby Supernova Remnants
12:05 PM - 12:30 AM	Morning Discussion
12:30 PM - 2:00 PM	Lunch
	SESSION 3 Chair: Dan Milisavljevic
2:00 PM - 2:20 PM	Damiano Caprioli, University of Chicago Towards a Comprehensive Theory of Diffusive Shock Acceleration

2:20 PM - 2:35 PM	Chelsea E Harris, Michigan State University Which SNe Ia Come from the Single Degenerate Channel? The Answer Will Shock You.
2:35 PM - 2:50 PM	Charlotte Wood, University of Notre Dame The Slowly Fading Light Echo Around Type Ia Supernova 2009ig
2:50 PM - 3:05 PM	Vikram Dwarkadas, University of Chicago Investigating the X-ray Emission from High X-ray Luminosity SNe
3:05 PM - 3:20 PM	Deep Chatterjee, University of Wisconsin Milwaukee Predicting Supernova Rates Using iPTF: Estimating the transient detection efficiency
3:20 PM - 3:35 PM	Noel D Richardson, University of Toledo eta Carinae: A stellar system 170 years after a Great Eruption
3:35 PM - 4:00 PM	Coffee Break
4:00 PM - 5:30 PM	SESSION 4 Chair: Paul Ricker
4:00 PM - 4:15 PM	Xilu Wang, University of Notre Dame Sandblasting The R-Process: Spallation Of The R-Process Nuclei Ejected From A NSNS Event
4:15 PM - 4:30 PM	A. Miguel Holgado, University of Illinois at Urbana-Champaign On the Formation of Double Neutron Stars from Supernova Natal Kicks
4:30 PM - 4:45 PM	Antonella Palmese, Fermilab Gravitational wave astrophysics and cosmology with DES galaxies
4:45 PM - 5:00 PM	Chris Pankow, Northwestern University Astronomy and Astrophysics with Gravitational Waves
5:00 PM - 5:30 PM	Discussion
6:30 PM	Dinner

Tuesday - February 26, 2019

Tucsuay - February	, 20, 2019
8:00 AM - 9:00 AM	Breakfast
	SESSION 5 Chair: Kate Alexander
9:00 AM - 9:20 AM	Mansi M. Kasliwal, Caltech First results from the Zwicky Transient Facility
9:20 AM - 9:35 AM	Sumit K Sarbadhicary, Michigan State University Drilling deep into the transient radio sky with the CHILES-VERDES survey
9:35 AM - 9:50 AM	Patrick Vallely, Ohio State University ASAS-SN: Big Science with Small Telescopes
9:50 AM - 10:05 AM	Gil Holder, University of Illinois Transients in CMB Surveys
10:05 AM - 10:20 AM	Rachel A Patton, The Ohio State University Optical Depth Constraints on the Supernova Impostors SN 1954J and SN 1961V
10:20 AM - 10:50 AM	Coffee Break
10:50 AM - 12:05 PM	SESSION 6 Chair: Tuguldur Sukhbold
10:50 AM - 11:05 AM	Sean Couch, Michigan State University The Turbulent Frontier in Massive Stellar Death
11:05 AM - 11:20 AM	Michael A Pajkos, Michigan State University Gravitational Wave Features from Rotating Core-Collapse Supernovae
11:20 AM - 11:35 AM	MacKenzie Warren, Michigan State University Multimessenger signals from the landscape of core-collapse supernovae
11:35 AM - 11:50 AM	Matthias Raives, The Ohio State University The Antesonic Condition for Core-Collapse Supernovae
11:50 AM - 12:05 PM	Brian Fields , University of Illinois When Stars Attack! Confirmation, Identification, and Localization of a Recent Near-Earth Supernova
12:05 PM - 12:30 PM	Morning Discussion
12:30 PM - 2:00 PM	Lunch
2:00 PM - 5:00 PM	SESSION 7 Chair: Paul Ricker
2:00 PM - 2:15 PM	Albert Stebbins, Fermilab Vacuum Pair Production and EMP for Short Radio Transients
2:15 PM - 2:30 PM	Niharika Sravan, Purdue University A comprehensive population-scale modeling of Type IIb supernova progenitors

2:30 PM - 2:45 PM	Elias Aydi, Michigan State University A "shock" to the system - classical novae emitting gamma-rays
2:45 PM - 3:05 PM	Elad Steinberg, Columbia University Emission from Radiative Shocks
3:05 PM - 3:20 PM	Kirill Sokolovsky, Michigan State University Classical novae as X-ray transients: the case of Nova Carinae 2018
3:20 PM - 3:35 PM	Kerry Paterson, Northwestern University Rapid follow-up of neutron star mergers and short GRBs
3:35 PM - 4:00 PM	Coffee Break
4:00 PM - 5:05 PM	SESSION 8 Chair: Mansi Kasliwal
4:00 PM - 4:20 PM	David Kaplan, UW-Milwaukee Radio Followup of Binary Neutron Star Mergers
4:20 PM - 4:35 PM	Zoheyr Doctor, Uchicago Search for Optical Emission from Binary-Black-Hole Merger 170814
4:35 PM - 4:50 PM	Aprajita Hajela, Northwestern University Developing New Technique to Measure the Ambient Density of GW170817
4:50 PM - 5:05 PM	Adithan Kathirgamaraju, Purdue University The non-thermal counterparts of GW170817: current observations and what we can expect in the future
5:00 PM - 5:30 PM	Final Discussion
5:30 PM	End