

KAVLI INSTITUTE FOR THEORETICAL PHYSICS
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KITP Conference: GW170817: The First Double Neutron Star Merger

(Dec 5-8, 2017)

in partnership with [The Kavli Foundation](#)

Coordinators: [Duncan Brown](#), [Daniel Kasen](#), and [Ehud Nakar](#)

Tuesday, Dec 05, 2017

Discovery and Observations, Chair: Duncan Brown (Syracuse)

8:50am Lars Bildsten (KITP)	Director's welcome
9:00am Michal Was (LAPP-CNRS)	Gravitational wave detection and characterization
9:45am Jennifer Barnes (LBNL)	Modeling kilonova optical and infrared emission
10:30am	Morning Break
11:00am Iair Arcavi (UCSB)	Optical+UV photometry
11:30am Maria Drout (Carnegie Obs.)	IR photometry
12:00pm Ryan Foley (UCSC)	Early optical spectra
12:30pm	Lunch Break

Discovery and Observations, Chair: Juna Kollmeier (Carnegie Obs.)

2:00pm Edo Berger (Harvard)	IR spectra time-series
2:30pm Mansi Kasliwal (Caltech)	Optical-through-IR spectra other interpretations
3:00pm Wen Fai Fong (Northwestern)	Host galaxy -- this and others
3:30pm	Afternoon Break
4:00pm Eleonora Troja (GSFC)	X-rays
4:30pm Raffaella Margutti (Northwestern)	X-ray afterglow follow up
5:00pm Gregg Hallinan (Caltech)	Radio
5:30pm Ehud Nakar (Tel Aviv U)	Planning and ideas for Friday morning
5:40pm	Reception
6:00pm	Special Events Dinner
8:00pm	Shuttle to BWSCI

Wednesday, Dec 06, 2017

GW Observations and Numerical Modelling, Chair: Luis Lehner (Perimeter Inst.)

9:00am Jocelyn Read (Cal State Fullerton)	Constraints on Nuclear Equation of State
9:30am David Radice (Princeton)	Numerical modelling of Binary Neutron Star mergers
10:00am Masaru Shibata (Kyoto U)	Simulations of Binary Neutron Star mergers
10:30am	Morning Break
11:00am Daniel Siegel (Columbia)	Disc winds from post-merger phase
11:45am Peter Veres (UAH)	GRB 170817A
12:30pm	Lunch Break

Gamma Ray Burst Physics, Chair: Ehud Nakar (Tel Aviv U)

2:00pm Thomas Janka (MPA)	Launching of Jet, Dynamical and post merger simulations
2:30pm Andrew MacFadyen (NYU)	Numerical modelling of Gamma Ray Bursts
3:00pm Andrei Beloborodov (Columbia)	Emission Mechanism of GRB 170817A
3:30pm	Afternoon Break
4:00pm Kunihiro Ioka (YITP)	Gamma rays and afterglow from a short duration GRB jet
4:45pm Omer Bromberg (Tel Aviv U)	Jet-ejecta interaction
5:30pm Dan Kasen (Berkeley)	Planning and ideas for Friday's session
5:40pm	Shuttle to BWSCI

Thursday, Dec 07, 2017**r-process, Chair: Masaomi Tanaka (NAOJ)**

9:00am Stephen Smartt (Queen's Belfast)	Optical/IR Kilonova Emission from Lanthanide Free Ejecta
9:45am Terese Hansen (Carnegie Obs.)	Implications for Nucleosynthesis
10:30am	Morning Break
10:45am Rebecca Surman (Notre Dame)	r-process nucleosynthesis and radioactivity in merger ejecta
11:30am Kenta Hotokezaka (Princeton)	Neutron star merger contributions to R-process abundance
12:00pm Tony Piro (Carnegie Obs.)	Alternative models of the optical/ir emission
12:30pm	Lunch Break

Past, Future and Summaries, Chair: Eliot Quataert (Berkeley)

2:00pm Daniel Scolnic (U. Chicago)	Past optical data sets: constrains on kilonova emissions
2:30pm Eran Ofek (Weizmann Inst.)	Future non-GW observations
3:00pm Stephen Fairhurst (Cardiff U)	Future GW observations
3:30pm	Afternoon Break
4:00pm Sterl Phinney (Caltech)	Theoretical implications and open puzzles
4:45pm Bob Kirshner (Harvard)	Perspectives on the event and prospects for the future
5:30pm Duncan Brown (Syracuse)	Planning and Schedule for Friday Morning
5:40pm	Reception
6:00pm	Special Event Dinner
8:00pm	Shuttle to BWSCI

Friday, Dec 08, 2017

9:00am Q&A Discussion	ad hoc discussions / talks 1
10:30am	Morning Break
11:00am Q&A Discussion	ad hoc discussions / talks 2
12:30pm	Lunch Break
2:30pm	Shuttle to BWSCI