

March 27<sup>th</sup> @ ISTB4, room 240

8:45 - 9:00 Welcome note (Frank Timmes)

9:00 - 9:40 Ani Aprahamian (30+10)  
“Nuclear physics experiments and the neutron star merger”

9:40 - 10:10 Mathew Mumpower (25+5)  
“Fission properties for r-process nucleosynthesis”

10:10 - 10:40 Zbigniew Chajecki (25+5)  
“Fission barriers of exotic nuclei”

10:40 - 11:00 Coffee Break

11:00 - 11:30 Nicole Vassh (25+5)  
“Fission and lanthanide production in r-process nucleosynthesis”

11:30 - 12:00 Iris Dillmann (25+5)  
“Half-lives and neutron-branching ratios from the first 2 years of the BRIKEN campaign”

12:00 - 12:30 Discussion

12:30-2:00 Lunch

2:00 - 2:40 Ashley Villar (30+10)  
“Evidence of r-process nucleosynthesis within observations of GW170817”

2:40 - 3:10 Tatsuya Matsumoto (25+5)  
“Is the macronova (or kilonova) in GW170817 powered by the black hole central engine?”

3:10 - 3:40 Coffee Break

3:40 - 4:10 Grant Mathews (25+5)  
“Constraints on Nuclear Equation of State and the Contributions to the r-Process from Supernova and Neutron-Star Mergers”

4:10 - 4:40 Richard Sarmiento (25+5)  
“Neutron Star Mergers and r-process enrichment.”

4:40 - 5:10 Discussion

March 28<sup>th</sup> @ ISTB4, room 240

9:00 - 9:40 Tim Beers (30+10)  
“A New Survey to Constrain the Astrophysical r-Process”

9:40 - 10:10 Gina Duggan (25+5)  
“Neutron Star Mergers are the Dominant Source of the r-process in the Early Evolution of Dwarf Galaxies”

10:10 - 10:40 Alex Ji (25+5)  
“Lanthanide fractions in neutron star mergers from metal-poor stars”

10:40 - 11:00 Coffee Break

11:00 - 11:30 Terese Hansen (25+5)  
“The R-Process Alliance - a new search for r-process enhanced stars”

11:30 - 12:00 Erika Holmbeck (25+5)  
“Actinide-Boost Stars May Not Suggest a Separate r-Process Site”

12:00 - 12:30 Discussion

12:30-2:00 Lunch @ISTB4, room 296

2:00 - 2:40 Kenta Hotokezaka (30+10)  
“Mass ejection from neutron star merger and Kilonova”

2:40 - 3:10 Zidu Lin (25+5)  
“Detectability of diffuse neutrinos from mergers”

3:10 - 3:40 Benoit Cote (25+5)  
“Probing the Origin of r-Process Elements and Isotopes in the Milky Way”

3:40 - 4:10 Coffee Break

4:10 - 4:40 Benjamin Wehmeyer (25+5)  
“Inhomogeneous Galactic Chemical Evolution of r-process Elements”

4:40 - 5:10 Duane Lee (25+5)  
“Mapping Star Formation Efficiency in the Chemical Abundance Ratio Distribution Space of Extremely Metal-Poor Galactic Systems”

5:10 - 5:40 Discussion

Workshop Dinner @ 3rd Floor Crater Carpet ISTB4

March 29<sup>th</sup> @ ISTB4, room 296

9:00 - 9:40 Brian Metzger (30+10)

“The real lessons of GW170817 about the origin of the r-process”

9:40 - 10:10 Dhruv Desai (25+5)

“Imprints of r-process heating on fall-back accretion: distinguishing black hole-neutron star from double neutron star mergers”

10:10 - 10:50 Discussion & Coffee

10:50 - 11:30 Phillipp Moesta (30+10)

“Jet-driven supernovae in the multi-messenger era”

11:30 - noon Discussion

noon-1:30 Lunch

1:30 - 2:10 Chris Fryer (30+10)

“Perils and Pitfalls in Estimating r-Process Yields From Kilonovae”

2:10 - 2:40 Paz Beniamini (25+5)

“Heavy elements in dwarf galaxies - Implications for the physical sites of r-process formation, evolution of dwarf galaxies and Galactic halo metal poor stars”

2:40 - 3:10 Stephanie Lyons (25+5)

“Beta-decay strengths studies to inform r-process nucleosynthesis”

3:10 - 3:30 Coffee Break

3:30 - 5:00 Panel Discussion lead by B. Metzger

March 30<sup>th</sup> @ ISTB4, room 240

9:00 - 9:30 Jennifer Barnes

“Late-time luminosity as a probe of r-process production”

9:30 - 10:00 Mohammad Safarzadeh

“What can we learn about delay time distribution of double neutron stars from 3<sup>rd</sup> Generation gravitational wave detectors?”

10:00 - 11:00 Discussion & Coffee Break

11:00 - 11:30 Wrap up (Frank Timmes)

A potential afternoon session will be decided over during the workshop.