Monday, Mar 14, 2022

Session: Stars / Compact Objects, Chair: Kaitlin Kratter (Arizona)

8:50am Lars Bildsten (KITP) Welcome

9:00am Roman Rafikov (Cambridge) Circumbinary disks across different scales

9:45am Matthew Bate (Exeter) Stellar Binary Accretion and Evolution

10:30am Morning Break

11:00am Selma De Mink (MPA) Discussion: Orbital Evolution

Sophie Schroder (N. Bohr Institute) [Slides][Video][CC] [Chat]

11:45am Ondrej Pejcha (Charles U) Discussion: Missing Physics

12:30pm Lunch break

2:00pm John Tobin (NRAO) The Characteristics, Origin, and Evolution of Multiplicity in the Protostellar Phase

2:30pm Meng Sun (Northwestern) How tides change the orbit of binaries and a new open-source code to model stellar tides [Slides][Video][CC]

3:00pm Pablo Marchant (KU Leuven) The role of accretion in the formation of gravitational wave sources

3:30pm Afternoon break

4:00pm Stefan Kraus (Exeter) Discussion: Observations

4:45pm Maxwell Moe (Arizona) Discussion: Populations

5:30pm Cocktail Reception

6:00pm Dinner

8:00pm Shuttle to BWSCI

Tuesday, Mar 15, 2022

Session: SMBHs, Chair: Zoltan Haiman (Columbia)

9:00am Julie Comerford (CU Boulder) Supermassive Black Hole Binaries, from Galaxy Mergers to Gravitational Waves

9:45am Tamara Bogdanovic (Georgia Tech) From Kiloparsec Scales to Merger: Properties of Dual AGNs that Become Gravitational Wave Sources

10:30am Morning break

11:00am Alberto Sesana (UNIMIB) Discussion: Orbital Evolution

Magdalena Siwek (Harvard) [Video][CC]

11:45am Julian Krolik (Johns Hopkins) Discussion: Missing Physics

12:30pm Lunch break

2:00pm Xin Liu (U Illinois) Electromagnetic Observations of Binary Supermassive Black Holes: New Opportunities with Large Synoptic Surveys

2:30pm K.E. Saavik Ford (BMCC) Connecting AGN Accretion Disks to Black Hole Binaries at Multiple Scales

3:00pm Chris Tiede (NYU) Simulating binaries in thin disks

3:30pm Afternoon break
Wednesday, Mar 16, 2022

Session: Binary Disk Physics, Chair: Dan D’orazio (NBIA)

9:00am Dong Lai (Cornell)  
Disks around Binaries and Binaries in Big Disks

9:45am Steve Lubow (STSCI)  
Dynamics of Aligned and Misaligned Circumbinary Disks

10:30am  
Morning break

11:00am Sterl Phinney (Caltech)  
Discussion: Observational Tests of Theory

11:45am Roger Blandford (Stanford)  
Discussion: Missing Physics

12:30pm  
Lunch break

2:00pm Enrico Ramirez-Ruiz (UCSC)  
Accretion Disk Formation in LIGO Black Hole Binaries

2:30pm Adam Dempsey (LANL)  
What Does It Take To Merge Binary Black Holes in AGN Disks

3:00pm Cristiano Longarini (U Milan)  
Simone Ceppi (Univ. of Milan)  
Chasing polar alignment in hierarchical triple systems

3:30pm  
Afternoon break

4:00pm Hui Li (LANL)  
Barry Mc Kernan (BMCC)  
Discussion: Stellar mass binaries in AGN

4:45pm Ian Czekala (Penn State)  
Discussion: Observational tests of theory

5:30pm  
Cocktail Reception

6:00pm  
Dinner

8:00pm  
Shuttle to BWSCI

Thursday, Mar 17, 2022

Session: Computational and Ongoing Challenges, Chair: Yan Fei Jiang (Flatiron)

9:00am Zhaohuan Zhu (UNLV)  
Grid-based simulations for misaligned circumbinary disks and disk breaking

9:45am Sasha Tchekhovskoy (Northwestern)  
Simulating how black holes burp and shine

10:30am  
Morning break

11:00am Laura Blecha (Florida)  
Scott Noble (GSFC)  
Discussion: Connecting different scales

11:45am Mark Avara (Cambridge)  
Paul Duffell (Purdue)  
Discussion: Code Comparison Projects

12:30pm  
Lunch break
2:00pm Mark Avara (Cambridge)  
3D-GRMHD Evolution of Inspiraling Supermassive Black Hole Binaries[Video][CC]

2:30pm Judit Szulagyi (ETH Zurich)  
Accretion inside circumplanetary disks, the equivalents of BH mini-disks[Video][CC]

3:00pm Philipp Moesta (U Amsterdam)  
Simulating accretion in the inner cavity of circumbinary disks[Video][CC]

3:30pm  
Afternoon break

4:00pm Shane Davis (U Virginia)  
Philipp Moesta (Univ. Amsterdam)  
Discussion: Post processing and Mock Observations[Video][CC]

5:30pm  
Conference end - SHUTTLE TO BWSCI *Also available to SB Airport and SB Airbus, Goleta location. (See Registration Desk BEFORE THURSDAY to sign up.)