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
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** [Slides][Video][CC]

9:45am Steve Lubow (STSCI)  
**Dynamics of Aligned and Misaligned Circumbinary Disks** [Slides][Video][CC]

10:30am  
Morning break

11:00am Sterl Phinney (Caltech)  
**Discussion: Observational Tests of Theory I** [Slides][Video][CC]

11:45am Roger Blandford (Stanford)  
**Discussion: Missing Physics III** [Video][CC]

12:30pm  
Lunch break

2:00pm Enrico Ramirez-Ruiz (UCSC)  
**Accretion Disk Formation in LIGO Black Hole Binaries** [Video][CC]

2:30pm Adam Dempsey (LANL)  
**What Does It Take To Merge Binary Black Holes in AGN Disks** [Slides][Video][CC]

3:00pm Cristiano Longarini (U Milan)  
**Chasing polar alignment in hierarchical triple systems** [Video][CC]

3:30pm  
Afternoon break

4:00pm Hui Li (LANL)  
**Discussion: Stellar mass binaries in AGN** [Video][CC]

4:45pm Ian Czekala (Penn State)  
**Discussion: Observational tests of theory II** [Video][CC]

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** [Video][CC]

9:45am Sasha Tchekhovskoy (Northwestern)  
**Simulating how black holes burp and shine** [Video][CC]

10:30am  
Morning break

11:00am Laura Blecha (Florida)  
**Discussion: Connecting different scales** [Slides][Video][CC]

11:45am Mark Avara (Cambridge)  
**Discussion: Code Comparison Projects** [Video][CC]

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

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

3:30pm Afternoon break

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

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.)