Preliminary Program

Growing Black Holes: Accretion & Mergers
In memory of Sergio Colafrancesco

April 19-24, 2020
new date: April 18-23, 2021

April 16-17, 2020  Mini-school for local astrophysics students In Nepal, with lectures introducing the conference topics

Sunday, April 19, 2020  16:30 Registration opens at Radisson, 19:00-21:30 Welcome reception

Monday, April 20

Morning session
09:00-09:05 Welcome & Opening
09:05-09:30 review Brad Peterson: Black holes in Active Galactic Nuclei
09:30-09:55 review Yosuke Mizuno: The shadow of the supermassive black hole in M87
09:55-10:20 review Xue-Bing Wu: SMBH growth at high redshift
10:20-10:45 review Martin Elvis: Adolescent black holes may be hard to find
10:45-11:00 talk Olmo Piana: The mass assembly of the high-redshift black hole population
--- coffee break
11:00-11:15 talk Dipanweeta Bhattacharyya: Cosmic spin and mass evolution of black holes and its impact
11:15-11:40 review Ramesh Narayan: Accretion disk theory: Overview
11:40-11:55 talk Srimanta Banerjee: Observing the imprints of event horizon on X-ray spectra
11:55-12:20 review Matthew Liska: GRMHD simulations of thin and tilted accretion disks and jets: How precessing disks and jets form
12:20-12:30 Massimo della Valle: Memories of Sergio Colafrancesco
short poster flash-up talks
--- lunch break

Afternoon session
14:00-14:25 review Barbara De Marco: Timing properties of hot coronae in accreting sources
14:25-14:40 talk Ehud Behar: Radio emission from radio quiet supermassive black holes
14:40-15:05 talk Andrzei Niedzwiecki: Constraining accretion flows with X-ray spectral data
15:05-15:20 talk Ananda Deepika Bollimpalli: Variability in tilted, truncated discs around black holes
15:20-15:35 talk Audrey Trova: Thick accretion disk in an external gravitational and electromagnetic field
15:35-16:00 review Krzysztof Nalewajko: Physical processes in jets
--- coffee break, group photo,
meet & greet between local students and mentors
16:30-16:55 review Christian Fromm: Relativistic jets in AGN, theory
16:55-17:10 talk Richard Anantua: Discovering the composition of relativistic jets from polarization maps
17:10-17:25 talk Anna Wojtowicz: Jet production efficiency in a sample of the youngest radio galaxies
17:25-17:40 talk Natalia Zywucka: Optical variability modelling of newly identified blazars and blazar candidates behind Magellanic Clouds
17:40-17:55 talk Gopal Bhatta: Properties of the gamma-ray variability of blazars

short poster flash-up talks

Tuesday, April 21

Morning session

09:00-09:25 review Paola Marziani: The quasar main sequence
09:25-09:50 review Andy Lawrence: The crisis caused by changing-look AGN
09:50-10:15 review Marco Berton: Narrow-line Seyfert 1 galaxies and their rapidly growing black holes
10:15-10:30 talk Emilia Järvelä (tbc): Extended radio emission in narrow-line Seyfert 1 galaxies
10:30-10:45 talk Ari Laor: Is there an ADAF transition in very low luminosity AGN ?
--- coffee break
11:15-11:30 talk Kohei Ichikawa: Serendipitous discovery of a dying AGN in Arp 187
11:30-11:45 talk Andrew Lobban: A wealth of spectral-timing results on the variable AGN NGC 3227 from 800ks of XMM-Newton and NuSTAR data
11:45-12:10 review Fazeel Khan (tbc): From dwarfs to giants: Dynamics and mergers of massive BH pairs in galaxies
12:10-12:35 review Philipp Moesta: Dynamics of binary BH mergers
--- lunch break

Afternoon session

13:35-14:00 review Maria Charisi: Searching for supermassive binary black holes
14:00-14:25 review A. Gopakumar: Supermassive binary black holes: The blazar OJ287 and its nano-Hertz GW emitting massive BH binary central engine
14:25-14:40 talk Colin DeGraf: Supermassive black hole merger rates, masses, and the morphological evolution of their host galaxies
14:40-14:55 talk Jorge Moreno: The role of galaxy mergers in the evolution of the interstellar medium and the growth of central stellar bulges
14:55-15:05 talk Branislav Avramov: Dynamical interaction and energy exchange of stars with a massive black hole binary
15:05-15:20 talk Lankeswar Dey: Spitzer observations of the predicted Eddington flare in the blazar OJ 287
15:20-15:35 talk Rubinur Khatun: Searching for dual AGN in galaxy mergers and their effect on galaxy evolution
--- coffee break
16:05-16:30 review James Miller-Jones: Radio observations of jets & the case of V404 Cyg
16:30-16:55 review Megumi Shidatsu: Galactic BH binaries: MAXI highlights
16:55-17:10 talk Andrzej Zdziarski: Transfer of magnetic field and jet formation in black-hole X-ray binaries
17:10-17:25 talk Alexandra Tetarenko: Multi-wavelength fast timing in X-ray binaries
17:25-17:40 talk Elise Egron: Investigating the mini and giant radio flares of Cygnus X-3

short poster flash-up talks
13:00-14:00 Public lecture on the Discovery of Gravitational Waves (for local physics students)

**Wednesday, April 22**

**Morning session**

09:00-09:15 talk Bailey Tetarenko: Thermally-Driven Disc Winds as a Mechanism for X-ray Irradiation Heating in Black Hole X-ray Binaries: The Case Study of GX339-4

09:15-09:30 talk Karri Koljonen: The anomalous accretion state of GRS 1915+105

09:30-09:55 review Krzysztof Belczynski: Gravitational-wave astrophysics: LIGO/Virgo BH-BH/BH-NS/NS-NS mergers

09:55-10:20 review Michela Mapelli: Cosmic merger rate of (stellar-mass) BHs

10:20-10:45 review Diego Jose Munoz: Hydrodynamic simulations of binary mergers

10:45-11:10 review Alexander Tchekhovskoy: Simulations of merger remnant accretion disks and jets in the aftermath of neutron star collisions

*short poster flash-up talks*

--- coffee break

11:30-11:45 talk Dorota Rosinska: Merging and colliding black holes from globular clusters as sources of GWs

11:45-12:00 talk Grzegorz Wiktorowicz: Populations of stellar-mass black holes from binary systems

12:00-12:15 talk Maria Celeste Artale: The most likely host galaxies of a compact binary coalescence

12:15-12:30 talk Mathieu Renzo: Mind the gap: pair instability and binary evolution influence on merging stellar mass binary black holes

12:30-12:45 *Introduction of local participants*

--- lunch break

**after lunch**: Conference excursion (to Bhaktapur, and maybe Pashupatinath)

**Thursday, April 23**

**Morning session**

09:00-09:25 review Tsvi Piran: TDE Theory

09:25-09:50 review Fukun Liu: TDEs in binary supermassive black holes

09:50-10:05 talk Hugo Pfister: Tidal disruption events on cosmological scales

10:05-10:30 review Alister Graham: Galaxy-BH scaling relations

10:30-10:45 talk Marvin Blank: The NIHAO project: how black hole accretion and feedback affects galaxy scaling relations

--- coffee break

11:15-11:30 talk Kiran Lakhchaura: Correlations between supermassive black holes, hot atmospheres, and the total masses of early type galaxies

11:30-11:55 review Thaisa Storchi-Bergmann: Feeding and feedback in AGN

11:55-12:20 review Raffaella Morganti: The impact of jets on the multi-phase gas

12:20-12:35 talk: Devendra Raj Upadhyay: Astrophysics in Nepal

*short poster flash-up talks*

--- lunch break

**Afternoon session**

14:00-14:25 review Jessie Runnoe: Kpc-scale outflows in AGN
14:25-14:50 review Alex Wagner: Simulations of jet-ISM interactions
14:50-15:05 talk Manuela Bischetti: Hyper-luminous quasars as probes of AGN feedback and galaxy assembly in the z~2-6 Universe
15:05-15:20 talk Ivan Katkov: Multi-wavelength view of large-scale galactic outflows
15:20-15:35 talk Tom Oosterloo: Molecular outflows in young AGN
15:35-16:00 review Pepi Fabbiano: Circum-nuclear X-ray emission from galaxies
16:00-16:15 talk DongWoo Kim: X-ray scaling relations of early type galaxies
--- coffee break
16:30-16:55 review Amy Reines: Intermediate-mass black holes (IMBHs) in dwarf galaxies
16:55-17:20 review Jillian Bellovary: Multi-messenger signatures of IMBHs
17:20-17:35 talk Igor Chilingarian: Active galactic nuclei powered by intermediate mass black holes
17:35-17:50 talk Vivienne Baldassare: Variability selection of active galactic nuclei in low-mass galaxies
17:50-18:05 talk Kristen Dage: Multiwavelength studies of ultraluminous X-ray sources in extragalactic globular clusters

short poster flash-up talks

19:30 Conference banquet

Friday, April 24

Morning session
09:00-09:25 review Jonathan Granot: Binary NS mergers
09:25-09:50 review Om Sharan Salafia: GRBs from binary mergers
09:50-10:15 review Eleonora Troja: Electromagnetic follow-ups of GW sources
10:15-10:40 review Adithan Kathirgamaraju: Off-axis short GRBs in the gravitational wave era
10:40-11:05 review Massimo della Valle: SN-GRB connection
--- coffee break
11:30-11:45 talk Antonio de Ugarte Postigo: GRB 171205A/SN2017iuk: A new standard for GRB studies
11:45-12:00 talk Geoff Beck: Multi-messenger probes of dark matter annihilation
12:00-12:25 review Shuang-Nan Zhang: Science highlights from Insight-HXMT
short poster flash-up talks
--- lunch break

Afternoon session
14:00-14:25 review Gulab Dewangan: Science highlights of AstroSat
14:25-14:40 talk Sneha Prakash Mudambi: AstroSat investigations of spectral and temporal properties of black hole candidate MAXI J1820+070 during the rising phase of its outburst
14:40-15:05 review Isabella Prandoni: SKA and its precursors
15:05-15:15 short-talk Brad Peterson: The Large UV Optical Infrared Surveyor (LUVOIR) mission concept
15:15-15:40 review Silvia Zane: Polarimetry with IXPE & eXTP
short poster flash-up talks
--- coffee break
16:30-16:45 talk Paolo Ciliegi: Extremely Big Eyes on the black holes formation and evolution
16:45-17:00 talk Michele Trenti: Spotting and studying black holes with tiny satellites
17:00-17:15 talk Luciano Burderi: HERMES & GrailQuest: Hunting for gravitational wave electromagnetic counterparts and probing space-time quantum foam

last updates: Jan 20, Jan 26, Feb 12, Feb. 27, March 2020