Scientific Program

First Annual BHI Conference on Black Holes

Monday, May 8 and Tuesday, May 9, 2017

Sheraton Commander Hotel, 16 Garden Street, Cambridge, MA

Hosted by the Black Hole Initiative, Harvard University
http://bhi.fas.harvard.edu/

All talks are 20 minutes (15+5)
Sessions held in the George Washington Ballroom
Coffee Breaks held in the adjacent Terrace Room

This conference was made possible by a generous grant from the John Templeton Foundation
Monday, May 8, 9:00AM-5:30PM

9:00-9:10AM
Avi Loeb: Welcome

Session 1: LIGO
Session Chair: Ramesh Narayan

9:10-10:30AM
Scott Hughes: Black Hole Physics via Gravitational Waves
Dan Holz: LIGO’s Black Holes
Deirdre Shoemaker: Binary Black Holes
Matt Evans: From Nothing to Everything - Binary Black Holes and the Next Generation of Gravitational Wave Detectors

10:30-11:00AM Coffee Break

Session 2: General Relativity
Session Chair: Ramesh Narayan

11:00-12:30PM
Clifford Will: Relativistic Evolution of Orbits Around Spinning Massive Black Holes
Emanuele Berti: Testing the Kerr Paradigm with Gravitational Wave Observations
Dimitrios Psaltis: Testing General Relativity with Black Holes

12:30-1:00PM Tour of BHI Offices (Optional) 20 Garden Street, 2nd Floor

12:30-2:00PM Lunch Break

Session 3: Physics
Session Chair: Andrew Strominger

2:00-3:30PM
Glenn Barnich: BMS Current Algebra and Field Dependent Central Extension
Stefanos Aretakis: Tails of Linear Waves on Black Holes
Monica Guica: The Kerr/CFT Correspondence and String Theory

3:30-4:00PM Coffee Break

Session 4: Supermassive Black Holes
Session Chair: Avi Loeb

4:00-5:30PM
Chung-Pei Ma: Supermassive Black Hole and Galaxy Coevolution?
Jeremiah Ostriker: Black Hole Accretion: The Generality of Inflow-Outflow Solutions
Marta Volonteri: The Feeding Cycle of Massive Black Holes
Zoltan Haiman: Dirty Black Hole Mergers

6:30-10:00PM Reception and Banquet Dinner in the Mount Vernon Ballroom
After dinner talk by Clifford Will: A History of Black Holes: The Ups and the Downs
Tuesday, May 9, 9:00AM-5:30PM

Session 5: Math/Philosophy
Session Chair: Shing-Tung Yau

9:00-10:30AM
David Kaiser: Coordinated Blasts: From H-Bomb Simulations to Numerical Relativity
Lars Andersson: New Conservation Laws for Fields on the Kerr Spacetime
Lydia Bieri: Gravitational Wave Memory in Cosmological Spacetime
Sean Gryb: Singularity Resolution Through Dynamical Quantum Gravity

10:30-11:00AM Coffee Break

Session 6: Astronomy
Session Chair: Sheperd Doeleman

11:00AM-12:30PM
Janna Levin: Black Hole Pulsar
Volker Bromm: Black Holes in the High-Redshift Universe
Priyamvada Natarajan: New Insights into the Assembly of Massive Black Holes
Edo Berger: Signatures of Black Hole Formation in Neutron Star Binary Mergers

12:30-2:00PM Lunch Break

Session 7: EHT
Session Chair: Ramesh Narayan

2:00-3:30PM
Sheperd Doeleman: EHT 2017: The End of the Beginning
Charles Gammie: Plasma Toupees
Avery Broderick: Black Hole Cinema: Variability on the Horizon
Michael Johnson: Imaging the Magnetic Field Structure and Dynamics Near a Black Hole with the Event Horizon Telescope

3:30-4:00PM Coffee Break

Session 8: Philosophy
Session Chair: Peter Galison

4:00-5:30PM
Lydia Patton: Listening to the Chirps: Estimating Black Hole Parameters Using the LIGO Results
Erik Curiel: Classical Black Holes Are Hot
David Wallace: Questions for Black Hole Evaporation from Quantum Statistical Mechanics
Jeroen van Dongen: History and Philosophy of the Black Hole Information Paradox

5:30PM End of Conference