ISRAEL SPACE WEEK

Israel Space Agency - Ministry of Innovation, Science & Technology

BLACK HOLES

From Theory to Observations
Academic Conference- February 1st, 2023

David InterContinental Hotel, Tel Aviv

Already at the end of the eighteenth century, Simon Laplace imagined Black Holes - objects whose gravitational attraction is so strong the even light cannot escape from them. However, the concept was largely forgotten. With the construction of the general theory of relativity at the beginning of the twentieth century, Albert Einstein and Karl Schwarzschild set the mathematical structure that describe such objects. However, only half a century later, Roger Penrose, who recently received a Noble prize for this discovery, explained their physical meaning, setting the ground for the realization that Black Holes might exist. Still, until recently Black Hole remained a theoretical concept. This has changed with the identification of a massive Black Hole in our galactic center, a discovery for which Reinhard Genzel and Andrea Ghez shared a Noble prize. This was followed by the identification of numerous Black Holes using different techniques. In this conference we will discuss how black holes turned from a theoretical concept to an astronomical reality and explore cutting edge research on these fascinating objects.

INVITED SPEAKERS

Iair Arcavi
Ofek Birnholtz
Roger Blandford
Reinhard Genzel
Tsevi Mazeh
Eran Ofek
Hagai Perets
Elad Steinberg
Marta Volonteri

SCIENTIFIC ADVISORY COMMITTEE

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PROGRAM

08:15-08:45	Registration
08:45-09:00	Formal opening
09:00-10:30	**Session 1:**
09:00-10:00	**Roger Blandford** - Jets, Disks and Winds from Spinning Black Holes: Nature or Nurture
10:00-10:30	**Eran Ofek** - Astrometric microlensing and isolated stellar mass black holes
10:30-11:00	**Break**
11:00-12:30	**Session 2:**
11:00-12:00	**Reinhard Genzel** - Near event horizon dynamics of stars, gas and photons in the Galactic Center
12:00-12:30	**Tsevi Mazeh** - The first stellar BH discovered by Gaia astrometry at a distance of 0.5 kpc
12:30-14:00	**Lunch + poster session**
14:00-15:30	**Session 3:**
14:00-15:00	**Marta Volonteri** - The history of the first massive black holes
15:00-15:30	**Ofek Birnholtz** - Observing Black Holes with Gravitational Waves
15:30-16:00	**Break**
16:00-18:00	**Session 4:**
16:00-16:30	**Iair Arcavi** - Transients from Supermassive Black Holes
16:30-16:35	Best Poster Presentation
16:35-17:05	**Elad Steinberg** - The Origin of TDE Emission
17:05-17:10	Best Poster Presentation
17:10-17:40	**Hagai Perets** - Novel channels for GW mergers of stellar BHs
17:40-17:50	Closing

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POSTER SESSION

Instructions for the Conference Posters will be sent via email. **The Scientific Advisory Committee will select two excellent posters to present at the Poster Session Presentation during the conference.**

VIRTUAL POSTER SESSION

Poster storage: The conference posters, in PDF format, will be stored and become accessible on the Academic conference website

Registration
adin.ext@most.gov.il

BACK TO HOME PAGE