

1st Workshop on Black holes and Relativistic Astrophysics

October 25-26, 2022
IF-BUAP, Puebla, Mexico

Invited Plenary Talks

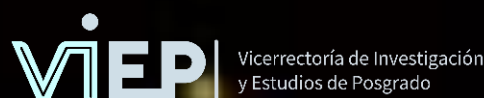
- **Ulises Nucamendi Gómez (UMSNH)**
Derivation of dz/dt for photons in Schwarzschild gravitational field
- **Mehrab Momennia (IF-BUAP)**
Employing dz/dt to disentangle M and D in the Schwarzschild background
- **Artemisa Villalobos Ramírez (IF-BUAP)**
Black hole parameters for megamaser systems in AGNs
- **Adriana González Juárez (IF-BUAP)**
Towards the estimation of the Sun's mass using BHRCs
- **Pritam Banerjee (IITK, India)**
Black hole rotation curves in Kerr spacetime
- **Ezequiel Boero (IATE & CONICET, Argentina)**
*Parameter estimation from orbits in the star cluster surrounding Sgr A**
- **Alfredo Herrera Aguilar (IF-BUAP)**
On conserved quantities in McVittie spacetime

Organizing Committee

- Roberto Cartas Fuentevilla
- Alberto Escalante Hernández
- Alfredo Herrera Aguilar
- Mehrab Momennia

Venue: IFUAP Auditorium

More Info: www.ifuap.buap.mx/eventos/2022/Poster_workshop_GBH22.pdf



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PROGRAM

Tuesday, October 25th

Chairman: Alfredo Herrera Aguilar

09:50-10:00 Welcome and inauguration by Prof. Felipe Pérez Rodríguez, IFUAP's Director, and by Dr. Alfredo Herrera Aguilar on behalf of the Organizing Committee.

10:00-11:00 Plenary talk # 1

Artemisa Villalobos Ramírez (IF-BUAP)

Black hole parameters for megamaser systems in AGNs

11:00-12:00 Plenary talk # 2

Adriana González Juárez (IF-BUAP)

Towards the estimation of the Sun's mass using BHRCs

12:00 -12:30 **Break**

12:30-13:30 **Discussion session**

13:30-16:00 Lunch

Chairman: Alfredo Herrera Aguilar

16:00-17:15 Plenary talk # 3

Ulises Nucamendi Gómez (IFM-UMSNH)

Derivation of dz/dt for photons in Schwarzschild gravitational field

17:15 -18:30 Plenary talk # 4

Mehrab Momennia (IF-BUAP)

Disentangling M and D with dz/dt in Schwarzschild black holes

Wednesday, October 26th

Chairman: Mehrab Momennia

10:00-11:30 Plenary talk # 5

Pritam Banerjee (IITK, India)

Black hole rotation curves in Kerr spacetime

11:30-12:00 **Break**

12:00-13:30 Plenary talk # 6

Ezequiel Boero (IATE & CONICET, Argentina)

Eccentric rotation curves in a Schwarzschild black hole

13:30-14:30 **Discussion session & future projects debate**

14:30-16:30 Lunch

Chairman: Ulises Nucamendi Gómez

16:30-17: 45 Plenary talk # 7

Alfredo Herrera Aguilar (IF-BUAP)

On conserved quantities in McVittie spacetime

17: 45 -18:00 Closure of the event by Dr. Roberto Cartas Fuentevilla, Dr. Alberto Escalante Hernández, Dr. Alfredo Herrera Aguilar and Dr. Mehrab Momennia.

Organizing Committee

Dr. Roberto Cartas Fuentevilla

Dr. Alberto Escalante Hernández

Dr. Alfredo Herrera Aguilar

Dr. Mehrab Momennia