

High Energy Phenomena in Relativistic Outflows VII (HEPRO VII)

Tuesday, 9 July 2019 - Friday, 12 July 2019

Facultat de Física, Universitat de Barcelona
Programme

Tuesday 09 July 2019

Registration: Registration - Aula Magna Enric Casassas (08:30-09:15)

Welcome - Aula Magna Enric Casassas (09:15-09:30)

Formation and propagation of relativistic outflows - Aula Magna Enric Casassas (09:30-11:00)

-Conveners: Maxim Barkov

time	title	presenter
09:30	PROPAGATION AND STABILITY OF RELATIVISTIC JETS	PERUCHO PLA, Manel
10:00	PLASMA INJECTION AND HIGH-ENERGY EMISSION IN BLACK HOLE MAGNETOSPHERES	LEVINSON, Amir
10:30	MHD Accretion Disk Winds and the Blazar Sequence	BOULA, Stella
10:45	Magnetically arrested disks around black hole, and jet formation	BISNOVATYI-KOGAN, Gennady

Formation and propagation of relativistic outflows - Aula Magna Enric Casassas (11:30-12:50)

-Conveners: Valenti Bosch-Ramon

time	title	presenter
11:30	IMAGING SUPERMASSIVE BLACK HOLES WITH THE EVENT HORIZON TELESCOPE	GÓMEZ, José Luís
11:50	GRMHD SIMULATIONS OF JET FORMATION WITH APPLICATION TO THE EHT ANALYSIS	PORTH, Oliver
12:20	Probing the dynamics of AGN jets with advanced semi-analytical modelling	LUCCHINI, Matteo
12:35	Structure of a collisionless pair jet in a magnetized electron–proton plasma: flow-aligned magnetic field	DIECKMANN, Mark Eric

Formation and propagation of relativistic outflows - Aula Magna Enric Casassas (14:30-15:45)

-Conveners: Manel Perucho Pla

time	title	presenter
14:30	THE INTERACTION OF JETS WITH OBSTACLES	TORRES-ALBÀ, Núria
15:00	Laboratory simulation of jet propagation in ambient medium with Plasma Focus facilities	KRAUZ, Vyacheslav
15:15	Relativistic Jets from black hole accretion disc	CHATTOPADHYAY, Indranil
15:30	Reconnection and Associated Flares in Global Relativistic Jets Containing Helical Magnetic Fields with PIC Simulations	NISHIKAWA, Kenichi

Particle acceleration and Radiation processes - Aula Magna Enric Casassas (16:15-17:15)

-Conveners: Frank Rieger

time	title	presenter
16:15	Generalized Fermi acceleration	LEMOINE, Martin
16:45	Pitch-angle Diffusion and Bohm-type Approximations in Diffusive Shock Acceleration	PE'ER, Asaf

17:00	Acceleration of Relativistic Outflows with Tangled Magnetic Field
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TANAKA, Shuta

Poster session - Aula Magna Enric Casassas (17:15-18:00)

HEPRO VII Welcome Reception - Atri Solar (18:00-20:00)

Wednesday 10 July 2019

Particle acceleration and Radiation processes - Aula Magna Enric Casassas (09:30-11:00)

-Conveners: Eugeny Derishev

time	title	presenter
09:30	PRESENT STATUS OF PARTICLE ACCELERATION IN RELATIVISTIC OUTFLOWS	CERUTTI, Benoît
10:00	EXTREME REGIMES OF EMISSION IN RELATIVISTIC OUTFLOWS	DERISHEV, Eugeny
10:30	Weibel Mediated Shocks Propagating into the Inhomogeneous Media	TOMITA, Sara
10:45	Relativistic Jet of Markarian 421: Observational Evidences of Particle Acceleration Mechanisms	KAPANADZE, Bidzina

Relativistic outflows from extragalactic sources - Aula Magna Enric Casassas (11:30-12:45)

-Conveners: Kazushi Iwasawa

time	title	presenter
11:30	MULTIWAVELENGTH PROPERTIES OF AGN JETS	COSTAMANTE, Luigi
12:00	The extreme character of our closest VHE blazars, Mrk421 and Mrk501	PANEQUE, David
12:15	5.5 years multiwavelength variability of Mrk 421: evidence of leptonic emission from radio to TeV	SLIUSAR, Vitalii
12:30	CTA 102 -- year over year receiving you	ZACHARIAS, Michael

Relativistic outflows from extragalactic sources - Aula Magna Enric Casassas (14:30-15:45)

-Conveners: Luigi Costamante

time	title	presenter
14:30	SUPERFAST AGN VARIABILITY	BARKOV, Maxim
15:00	Unraveling the complex nature of the very high-energy gamma-ray blazar PKS 2155-304	WIERZCHOLSKA, Alicja
15:15	Optical variability modelling of newly identified blazars and blazar candidates behind Magellanic Clouds	ZYWUCKA-HEJZNER, Natalia
15:30	Are BL Lac jets weakly magnetised?	SOBACCHI, Emanuele

Relativistic outflows from extragalactic sources - Aula Magna Enric Casassas (16:15-17:30)

-Conveners: Markus Böttcher

time	title	presenter
16:15	UHE COSMIC RAYS AND AGN JETS	RIEGER, Frank
16:45	Gamma-rays from large-scale outflows in starburst galaxies	ROMERO, Gustavo E.
17:00	On the interaction of pulsar winds and clumpy stellar winds	KEFALA, Eleni BOSCH-RAMON, Valenti
17:15	Spectral ageing in powerful radio galaxies	MAHATMA, Vijay

Thursday 11 July 2019

Relativistic outflows from extragalactic sources - Aula Magna Enric Casassas (09:30-10:30)

-Conveners: David Paneque

time	title	presenter
09:30	THE PHYSICS OF GAMMA-RAY BURSTS	ZHANG, Bing
10:00	THE TRANSIENT HIGH-ENERGY SKY AND EARLY UNIVERSE SURVEYOR (THESEUS)	AMATI, Lorenzo

Relativistic outflows from galactic sources - Aula Magna Enric Casassas (10:30-11:00)

-Conveners: David Paneque

time	title	presenter
10:30	Black Hole High Mass X-ray Binary Microquasars at Cosmic Dawn	MIRABEL, Felix
10:45	Gamma-ray emission from Cyg X-1 and Cyg X-3	ZDZIARSKI, Andrzej

Relativistic outflows from galactic sources - Aula Magna Enric Casassas (11:30-12:45)

-Conveners: Marc Ribó

time	title	presenter
11:30	RELATIVISTIC OUTFLOWS FROM COMPACT GALACTIC SOURCES	BORDAS, Pol
12:00	GRS 1758-258 as a winged microquasar	MARTÍ, Josep
12:15	Lorentz factors of compact jets in black hole X-ray binaries	SAIKIA, PAYASWINI
12:30	Inclination dependence of the time-lag – photon-index correlation in BHXRBs and its explanation with a simple jet model	KYLAFIS, Nick

Relativistic outflows from galactic sources - Aula Magna Enric Casassas (14:30-15:45)

-Conveners: Roberta Zanin

time	title	presenter
14:30	THE THEORY OF PULSAR WIND NEBULAE: RECENT PROGRESS	AMATO, Elena
15:00	The Pulsar Sequence	KALAPOTHARAKOS, Constantinos
15:15	TeV and X-ray emission from the 50-year period binary PSR J2032+4127/MT91 213 during periastron passage	BLANCH BIGAS, Oscar
15:30	Observations of the accreting X-Ray pulsar GX 301-2 with the X-Calibur Hard X-ray polarimetry mission	ERRANDO, Manel

Relativistic outflows from galactic sources - Aula Magna Enric Casassas (16:15-17:00)

-Conveners: Josep Martí

time	title	presenter
16:15	THE FLARING CRAB NEBULA: CURRENT UNDERSTANDING AND FUTURE OBSERVATIONS	ZANIN, Roberta
16:45	Gamma-rays and positrons from colliding wind binaries	BALBO, Matteo

Multiwavelength and multi-messenger aspects - Aula Magna Enric Casassas (17:00-17:30)

time	title	presenter
17:00	Synchrotron maser from weakly magnetised neutron stars as the emission mechanism of fast radio bursts	LONG, Killian
17:15	The Impact of Plasma Instabilities on the Constraints on the Intergalactic Magnetic Field	YAN, Dahai

Friday 12 July 2019

Multiwavelength and multi-messenger aspects - Aula Magna Enric Casassas (09:30-11:00)

-Conveners: **Gustavo E. Romero**

time	title	presenter
09:30	FRB MULTI-WAVELENGTH AND MULTI-MESSENGER ASTROPHYSICS	PETROFF, Emily
10:00	LIGO-VIRGO GRAVITATIONAL WAVE SCIENCE	VAN DEN BRAND, Jo
10:30	Resolving a decades-long transient: an orphan long gamma-ray burst or a young magnetar nebula?	MARCOTE, Benito
10:45	Magnetorotational supernovae and gravitational waves	MOISEENKO, Sergey

Multiwavelength and multi-messenger aspects - Aula Magna Enric Casassas (11:30-12:45)

-Conveners: **Matteo Cerruti**

time	title	presenter
11:30	PROBING BLAZAR PHYSICS WITH ASTROPHYSICAL NEUTRINOS	PETROPOULOU, Maria
12:00	Photo-hadronically produced neutrinos from blazars	BOETTCHER, Markus
12:15	Neutrinos from TXS 0506+056	BRITZEN, Silke
12:30	High-energy neutrino and gamma-ray emission from AGN-driven winds	INOUE, Susumu

Farewell (12:45-13:15)