

The 6<sup>th</sup> Bego Rencontre Summer School – July 4 - 14, 2022 (ICRANet Seat at Villa Ratti in Nice, in Pescara and online)

	Monday July 4 (ICRA Sapienza and ONLINE)	Tuesday July 5 (NICE and ONLINE)	Wednesday July 6 (NICE and ONLINE)	Thursday July 7 (PESCARA and ONLINE)	Friday July 8 (PESCARA and ONLINE)	Saturday July 9	Sunday July 10	Monday July 11 (PESCARA and ONLINE)	Tuesday July 12 (PESCARA and ONLINE)	Wednesday July 13 (PESCARA and ONLINE)	Thursday July 14 (PESCARA and ONLINE)	
Topics	Dark Matter Galactic Center	Dark Matter Galactic Center	Dark Matter Galactic Center	AGNs	Fronteer			Cocoon and BdHN Model	Cocoon and BdHN Model	Supernova	GRB 171205A and GRB 220101	
Chair	<i>Carlo Luciano BIANCO</i>	<i>Aldo TREVES</i>	<i>Piero ROSATI</i>	<i>Gregory VERESHCHAGIN</i>	<i>Shesheng XUE</i>			<i>Yerlan AIMURATOV</i>	<i>Liang LI</i>	<i>Maria Giovanna DAINOTTI</i>	<i>Carlos ARGUELLES</i>	
09:00- 09:45	<b>Carlo Luciano BIANCO</b> <i>Report on the July 1, 2022 ANVUR evaluation of ICRA and ICRANet</i>	<b>Federico RE</b> <i>Detectability of primordial black holes as a dark matter candidate with gravitational waves from the Galactic center</i>	<b>Daniele GREGORIS</b> <i>Understanding Gravitational Entropy of Black Holes: A New Proposal via Curvature Invariants</i>	<b>Kuantay BOSHKAYEV</b>				<b>Maria Giovanna DAINOTTI</b> <i>3D fundamental plane relation from the high- energy (Fermi-LAT) to the optical wavelengths</i>	<b>Ehud NAKAR</b> <i>Jet propagation, shock breakout and Cocoon emission</i>	<b>Massimo DELLA VALLE</b>	<b>Jorge RUEDA</b> <i>Binary-Driven Hypernovae: building blocks and future developments</i>	
09:45- 10:30	<b>Paola Re FIORENTIN and Alessandro SPAGNA</b> <i>Local Cosmology in the Gaia era</i>	<b>Stefano BONDANI</b> <i>Detectability of primordial black holes as a dark matter candidate with gravitational waves from the Galactic center</i>	<b>Carlos Raul ARGUELLES</b> <i>RAR model: cosmological scales, galactic scales, and DM particle nature</i>	<b>Shesheng XUE</b> <i>W\$ boson mass tension caused by its right-handed gauge coupling at high energies?</i>				<b>Lorenzo AMATI</b> <i>Cosmology with Gamma- Ray Bursts</i>	<b>Tsvi PIRAN</b>	<b>Rahim MORADI</b> <i>Nature of the ultrarelativistic prompt emission phase of GRB 190114C and 180720B</i>	<b>Liang LI</b> <i>BdHN at large distances (2) spectral analysis</i>	
10:30- 11:15	<b>Florian PEISSKER</b>	<b>Felix MIRABEL</b>	<b>Carlos Raul ARGUELLES</b>	<b>Narek SAHAKYAN</b>	<b>Wentao LUO</b>			<b>Ehud NAKAR</b> <i>Jet propagation, shock breakout and Cocoon emission</i>	<b>Mariateresa CROSTA</b> <i>Multiscale gravitational astronomy in the Gaia era: general relativistic observables, models and tests for the Galaxy and its constituents. The Milky Way as Einstein's paradigm.</i>	<b>Luca IZZO</b> <i>The search for jet cocoon in broad line supernovae</i>	<b>Wang YU</b> <i>GRB 190829A - A Showcase of Binary Late Evolution</i>	
11:15- 11:30	Coffee break								Coffee break			
11:30- 12:15	<b>Matteo VIEL</b> <i>The Intergalactic Medium as a cosmological probe</i>	<b>Carlos ARGUELLES</b> <i>2022 ICTP-SAIFR Prize in Classical Gravity and Applications – Fermionic DM: galactic scales, cosmological scales and the nature of the dark matter particles</i>	<b>Piero ROSATI</b> <i>Cosmography and tests of the LCDM paradigm with high- precision strong lensing modelling of galaxy clusters</i>	<b>Razmik MIRZOYAN</b>				<b>Gregory VERESHCHAGIN</b> <i>Photospheric emission from relativistic cocoons</i>	<b>Petr KOTLAŘÍK</b> <i>Slowly rotating thin discs around a central black hole as possible relativistic model of galaxy</i>	<b>Eli WAXMAN</b> <i>ULTRASAT mission</i>	<b>General discussion</b>	
12:15 – 13:00			<b>Martin MESTRE</b> <i>Constraining the core-halo structure of fermionic DM in the Galaxy with stellar streams</i>	<b>Costantino SIGISMONDI</b> (video message)	<b>Francesco LONGO</b> <i>Observations of GRB at HE and VHE energies: a long path to success</i>				<b>Davide ASTESIANO</b> <i>Relativistic models for galaxies</i>	<b>Yerlan AIMURATOV</b> <i>Gamma-Ray Bursts Associated with Supernovae. Case studies: 190114C, 190829A, 130427A.</i>	<b>General discussion</b>	
13:00 – 15:00	Lunch break								Lunch break			
15:00- 15:45			<b>Massimo MENEGHETTI</b> <i>Strong lensing constraints on the small scale structure of galaxy clusters</i>	<b>Jose RODRIGUEZ</b> <i>Ellipsoids evolution via GWs</i>				<b>Tsvi PIRAN</b>	<b>Eleonora TROJA</b>			
15:45- 16:30			<b>Valentina CRESPI</b> <i>S2 star dynamics in high Dark Matter densities around SgrA*</i>					<b>Nick MAVROMATOS</b> <i>Cosmologies with Gravitational Anomalies and Axions: modified profiles of Gravitational Waves and warm dark matter properties</i>		<b>Laura BECERRA</b> <i>SPH simulations of the Induced Gravitational Collapse</i>	<b>Christopher FRYER</b>	
16:30 – 17:00	Coffee break								Coffe break			
17:00 – 17:45		<b>Rafael YUNIS</b> <i>Small-scale structure, self-interacting fermions, and cosmology</i>						<b>Vahe PETROSIAN</b>	<b>Bing ZHANG</b> <i>The physics of fast radio bursts</i>	<b>General discussion</b>	<b>Remo RUFFINI Jorge RUEDA</b>	