

Workshop on “Megavolt Sky Astronomy” 11 – 15 December 2023

Monday, 11 December 2023		
Time	Topic/Title	Speaker
13:45	Registration ISSI, Hallerstrasse 6, 1 st floor, Badges	
14:00-14:15	Welcome	Conveners
	Session: Accreting neutron stars and the Sun	
14:15-14:50	Accreting Neutron Stars and the MeV	Joern Wilms
14:50-15:25	Explosive energy release and ion acceleration by the Sun	Albert Shih
	Session: Gamma Ray Bursts	
15:25-16:00	Recent results from the GRB field	Brad Cenko
16:00-16:35	Theoretical aspects and open question in GRB science	Lara Nava
16:35-17:10	Future missions for GRB studies	Diego Gotz
17:10	<i>Welcome Reception - Hallerstrasse 6, 1st floor</i>	

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Tuesday, 12 December 2023		
Time	Topic/Title	Speaker
	Session: Gravitational Waves and neutrinos	
09:00-9:35	Nuclear emission of gamma-rays from kilonovae and their remnants	Meng-Ru Wu
9.35- 10:10	Multi-messenger astronomy with high-energy facilities and next generation GW interferometers	Gor Oganessian
10:10-10:45	High-energy neutrinos from AGN	Sara Buson
<i>Coffee Break</i>		
	Session: Fundamental physics	
11:10-11:45	MeV/GeV astrophysics and fundamental physics	Alessandro de Angelis
11:45-12:20	Simulation-based inference for astroparticle physics	Christoph Weniger
12:20-14:00	Lunch	
	Session: Cosmic Rays	
14:00-14:35	Low Energy Cosmic Ray physics in the context of MeV Astrophysics	Alexandre Marcowith
14:35-15:10	The acceleration of low-energy cosmic rays and their transport close to the source	Martin Pohl
15:10-15:45	MeV Signatures of Particle Acceleration in SNRs	Pat Slane
15:45-16:10	<i>Coffee Break</i>	
	Session: gamma ray lines	
16:10-16:45	Cosmic Rays from Star Clusters	Stefano Gabici
16:45-17:20	Cosmic Ray Injection, Transport, and the Structure of the Galactic Disk	Ellen Zweibel
17:20-18:20	Open discussion / book	

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Wednesday, 13 December 2023		
Time	Topic/Title	Speaker
	Session: Pulsars and Pulsar Wind Nebulae	
09:00-9:35	MeV radiation from Pulsars and Magnetars	Alice Harding
9:35-10:10	Hints on PWN physics from MeV radiation	Elena Amato
<i>10.10-10:35 Coffee Break</i>		
	Session: Black Holes in the early Universe	
10:35-11:10	Blazars at high redshift: the abundance of relativistic jets in early SMBHs and implications on their evolution	Tullia Sbarrato
11:10-11:45	COSI and The MeV Extragalactic Sky	Marco Ajello
11:45-12:20	discussion	conveners
<i>12:20- Lunch</i>		
<i>Free afternoon</i>		
<i>18:30 Dinner at restaurant n.n. (organized by ISSI)</i>		

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Thursday, 14 December 2023		
Time	Topic	Chair / Speaker
	Session:	
9:00-9:35	The extragalactic gamma-ray background at MeV energies and above	Markus Ackermann
9:35-10:10	MeV emission from gamma-ray binaries: a probe of particle acceleration processes	Maurizio Falanga
10:10-10:45	gamma-ray emitters: from MeV gamma-ray observations to laboratory cross-section measurements	Nicolas de Sereville
<i>10:45-11:10</i>	<i>Coffee Break</i>	
11:10-11:45	Positron annihilation as an astronomical messenger	Thomas Siebert
11:45-12:20	A search for the origin of the Fermi bubbles	Dmitry Malyshev
	Session: Mission concepts	
12:20-12:55	The ASTROGAM concept	Vincent Tatischeff
<i>12:55-14:15</i>	<i>Lunch</i>	
14:15-14:50	A Gamma-ray Roadmap for the next decade and the AMEGO-X mission concept	Regina Caputo
14:50-15:25	Gamma-ray line spectroscopy and future MeV gamma-ray detectors	Wei Wang
15:25-16:00	Exploring the MeV Gamma-Ray Sky: Towards an innovative high-resolution gamma-ray telescope GRAMS	Reshmi Mukherjee
<i>16:00-16:20</i>	<i>Coffee Break</i>	
16:20-18:00	Book	conveners

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Friday, 15 December 2023		
Time	Topic / Title	Chair
9:00-9:35	Compton telescopes: lessons learned and outlook to COSI and beyond	Uwe Oberlack
9:35-10:10	The Crystal Eye space based MeV telescope(s)	Ivan De Mitri
10:10-10:45	The MeVCube concept	David Berge
<i>10:45-11:10 Coffee Break</i>		
11:10-12:00	Book Discussion	

Last update: 11 December 2023