

VULCANO WORKSHOP 2024
Frontier Objects in AstroPhysics and Particle Physics
May 26th - June 1st, Ischia, NA, Italy

Tentative Scientific Program (v.7)

Sunday, May 26th - Arrivals

Monday, May 27th

08:45 A. Antonelli,
R. Fusco Femiano Welcome address

Gravitation, GW and electromagnetic counterpart

Chair: M. Burgay

09:00 M.A. Papa Latest results on GW
09:25 I. Dipalma Multi-messenger observations, status and future perspectives
09:50 B. Patricelli Chasing Gravitational Waves with the Cherenkov Telescope Array
10:15 M. Punturo The Einstein telescope
10:40 *Coffee Break*

Chair: B. Allen

11:00 E. Battista Gravitational Waves in Einstein-Cartan Theory
11:25 S. Capozziello Modified Gravity Alternatives to Dark Matter
11:50 J. Harms Lunar GW Antenna (LGWA)
12:15 K. Jani Laser Interferometer Lunar Antenna (LILA) for Lunar GW detection
12:40 M. Muccino Fundamental gravity with Lunar Laser Ranging (2024 mission CP11 of NASA-ESA)
13:05 M. Visco Testing Gravity with LAGEOS, LARES and Galileo
13:30 *END*
13:30 *Lunch*

Astrophysics/Cosmology

Chair: A. Lamastra

17:00 C. Fryer Theory of Kilonovae from binary mergers
17:25 A. Rossi Observations of Kilonovae
17:50 H.J. van Eerten Relativistic jets in GRB and NS mergers
18:15 P. Santini Properties of high-z galaxies observed with JWST
18:40 M. Castellano The impact of JWST observations on galaxy formation
19:05 *END*
20:30 *Dinner*

Tuesday, May 28th

Astrophysics/Cosmology

Chair: N. Cappelluti

09:00 E. Di Valentino H0 tension: current data and possible solutions (*remote talk*)
09:30 G. Gianfagna H0 from GW and EM joint measures
09:55 M. Burgay Recent developments from Fast Radio Bursts
10:20 M.G. Haehnelt Warm DM from Ly α systems
10:45 *Coffee Break*

Chair: P. Santini

11:05 C. Vignali Dual/Binary AGNs
11:30 L. Graziani First stars in the Universe
11:55 A. Lamastra Gamma-ray and neutrino emission from Seyfert galaxies
12:20 S. Mastrogiovanni Implications of BH-BH events for cosmology
12:45 V. Cardone Results from Euclid
13:10 *END*
13:30 *Lunch*

Astrophysics/Cosmology

Chair: M.A. Papa

17:00 B. Allen Pulsar timing arrays
17:25 A. Saccardi High-z GRBs
17:50 A. Ferrara Dusty wind and super early galaxies (*remote talk*)
18:15 R. Ferrazzoli Results from IXPE
18:40 N. Cappelluti Primordial BHs and DM
19:05 M. Spurio Multimessenger astronomy driven by high-energy neutrinos
19:30 *END*
20:30 *Dinner*

Wednesday, May 29th

Cosmic Rays, Gamma Rays (Ground Based)

Chair: F.A. Aharonian

09:00 C. Evoli Recent Results in Cosmic-Ray Astrophysics
09:25 J. Kim Highlights from the Telescope Array Experiment
09:50 F. Stolzi Results of the Heavy Cosmic-Ray Analysis with CALET on the International Space Station
10:15 I. De Mitri Galactic cosmic ray studies with the DAMPE space mission
10:40 C. Checchia Highlights on the first 8 years of CALET experiment observations on the International Space Station

11:05	<i>Coffee Break</i>
	Chair: I.V. Moskalenko
11:25	F. Salamida Highlights from Pierre Auger Observatory
11:50	M. Mostafa Results from the High-Altitude Water Cherenkov Observatory
12:15	F. Longo The sky at its highest energies. From Fermi to CTA
12:40	M. Teshima LST program highlights
13:05	L. Marcelli Results and performance of the Mini-EUSO telescope on board the International Space Station
13:30	<i>END</i>
13:30	<i>Lunch</i>
	social event
20:30	<i>Dinner</i>

Thursday, May 30th

Cosmic Rays

	Chair: M. Spurio
09:00	R. Sparvoli Recent results on cosmic ray direct observation
09:25	P. Mertsch Cosmic rays in a turbulent interstellar medium: Recent progress and open questions
09:50	I.V. Moskalenko Modeling of Galactic cosmic rays and interpretation of direct Measurements
10:15	E. Battistelli The search for the Cosmic Web with large radio telescopes
10:40	<i>Coffee Break</i>

Cosmic Rays, Gamma Rays

	Chair: M. Teshima
11:00	S. Dichiara Observations and implications of electromagnetic counterparts to GW sources
11:25	J. Horandel Measurements of the highest energy cosmic rays
11:50	R. Yang Ultra High Energy Gamma Ray Astronomy
12:15	F.A. Aharonian Motivations and Objectives of gamma-ray astronomy with atmospheric Cherenkov telescopes
12:40	D. Kang Recent results of cosmic-ray studies with IceTop at the IceCube Neutrino Observatory
13:05	M. Santander SWG0
13:30	<i>END</i>
13:30	<i>Lunch</i>

	Chair: B. Dobrich
17:00	S. Gabici Cosmic rays and gamma rays: from supernova remnants to clusters of galaxies
17:25	C. Pittori AGILE legacy
17:50	X.J. Bi Very high energy gamma-ray emission beyond 10 TeV from GRB 221009A
18:15	E. Bissaldi GRB at High Energies

Dark matter

18:40	P. Ullio Dark matter searches: status and prospects
19:05	D. Soldin The Forward Physics Facility and its Implications for Astroparticle Physics
19:30	<i>END</i>
20:30	<i>Dinner</i>

Friday, May 31st

Dark matter

	Chair: P. Ullio
09:00	C. Seitz Dark Matter search at LHC : status and new project
09:25	B. Dobrich Axions at low and high mass scales
09:50	T. Spadaro Searches for dark messengers at NA62: a focus on hadronic final states
10:15	V. Kozhuharov Padme latest results
10:40	P. Winter New Results from g-2
11:05	<i>Coffee Break</i>

Particle

	Chair: D. Soldin
11:25	P. Campana The path toward future accelerators
11:50	M. Ferrario Eupraxia at LNF
12:15	G. Landsberg Highlights from LHC
12:45	V. Vagnoni Latest results on rare B decays from Belle2 and LHCb
13:10	J.C. Swallow Latest results on rare Kaon decays
13:35	<i>END</i>
13:30	<i>Lunch</i>

Dark matter

	Chair: B. Patricelli
17:00	F. Nicastro Missing baryons in the universe

Neutrino

17:25	L. Patrizii DUNE at Fermilab
17:50	J. Aguilar Highlights from the IceCube Neutrino Observatory
18:15	S. Celli KM3NeT Physic Program
18:40	<i>END</i>
20:30	<i>Dinner</i>

Saturday, June 1st - Departures