

Program of Session S2

Astrophysics and Cosmology

(other activities are mentioned in the conference's main program)

Date: October 13-15, 2025

Venue: Phenikaa University, Duong Noi, Hanoi

Organizers: Phenikaa University, NYCU Institute of Physics, and Vietnam Physical Society

No.	Time	Title	Presenter
October 13, 2025 Morning			
10:45 – 11:45		Oral session chaired by Nguyen Quynh Lan ; location: Room 2 (201 A8)	
S2.K1	10:45 – 11:15	KAGRA large-scale cryogenic gravitational wave telescope	Prof. Shinji Miyoki The University of Tokyo
S2.K2	11:15 – 11:45	Obtaining new tools for astrophysical magnetic field study through a better understanding of MHD turbulence <i>[ONLINE]</i>	Prof. Alex Lazarian University of Wisconsin-Madison
October 13, 2025 Afternoon			
13:30 – 15:10		Oral session chaired by Do Quoc Tuan ; location: Room 2 (201 A8)	
S2.K3	13:30 – 13:55	Beyond Einstein gravity: Black holes and cosmology	Prof. Bum-Hoon Lee Sogang University
S2.K4	13:55 – 14:20	How quantum spins in cosmic dust illuminate galactic magnetic fields? <i>[ONLINE]</i>	Prof. Thiem Hoang Korea Astronomy and Space Science Institute and University of Science and Technology
S2.K5	14:20 – 14:45	Strong-field gravitational lensing by rotating black holes	Prof. Sushant Ghosh Jamia Millia Islamia
S2.K6	14:45 – 15:10	Astronomy and astrophysics worldwide and in Vietnam	Assoc. Prof. Pham Ngoc Diep Viet Nam National Space Center, Vietnam Academy of Science and Technology
15:25 – 16:00		Poster session 1	
16:00 – 17:30		Oral session chaired by Pham Ngoc Diep ; location: Room 2 (201 A8)	
S2.K7	16:00 – 16:25	Cosmological collider physics	Prof. Masahide Yamaguchi Institute for Basic Science
S2.I1	16:25 – 16:50	BLADE: a broadband low-frequency array for detection and exploration of fast radio burst and transients <i>[ONLINE]</i>	Prof. Quang Nguyen-Luong CEA Saclay

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S2.I2	16:50 – 17:10	Deriving the intrinsic properties of high- z galaxies from lensed ALMA and JWST images	Dr. Pham Tuan-Anh Viet Nam National Space Center, Vietnam Academy of Science and Technology
S2.I3	17:10 – 17:30	An algorithm for dark matter-admixed neutron stars in the era of gravitational-wave astronomy	Dr. Peter Lott Phenikaa University
October 14, 2025 Afternoon			
13:30 – 15:10		Oral session chaired by Pham Tuan-Anh; location: Room 1 (104 A8)	
S2.O1	13:30 – 13:55	What Constitutes a Gravitational Wave In An Expanding Universe?	Prof. Yi-Zen Chu National Central University
S2.O2	13:55 – 14:20	Performance assessment of the RC500 Ritchey–Chrétien telescope at Nha Trang observatory	Dr. N. T. Thao Vietnam National Space Center, Vietnam
S2.O3	14:20 – 14:45	Holographic principle: from black hole thermodynamics to superconducting matter	Dr. Tran Ngoc Hung Phenikaa University
S2.O4	14:45 – 15:10	Unstable de Sitter solutions in two novel fourth-order gravities with the Grisaru-Zanon correction	Assoc. Prof. Tuan Q. Do Phenikaa University

List of poster presentations

Poster session 1 October 13, 2025: 15:25 – 16:00 Chairpersons: Nguyen Quynh Lan, Do Quoc Tuan		
S2.P1	The perturbative $f(R)$ theory: non-static charged black hole and embedding in the background of the FLRW cosmology, uniqueness of solutions	Dr. Pham Van Ky Institute of Physics, Vietnam Academy of Science and Technology
S2.P2	Inflationary power-law Bianchi type I universe with multiple vector fields	Mr. Duy H. Nguyen Phenikaa University