# PGU-3
# List of contributors

## PLENARY SECTION

1. **Dao Tien Khoa** (INST, Hanoi, Viet Nam): *Quantum mechanics of stars*.
2. **Darriulat Pierre** (VNSC, VAST, Hanoi Viet Nam): *The discoveries of W, Z and Higgs bosons.*
3. **Kusenko Alex** (UCLA, Los Angeles, USA): *Black holes and dark matter.*

## PARALLEL SECTIONS

### SECTION 1
### "*Quantum physics at small scales*"

#### INVITED TALKS

1. **Boninsegni Massimo** (Alberta Univ., Alberta, Canada): *Superfluid and supersolid phases: physical insight from computer simulations.* **(S1-I2)**
2. **Kim Doris** (SoongSil Univ., Seoul, Korea): *Recent highlights from Belle and Belle II.* **(S1-I4)**
3. **Koshio Yusuke** (Okayama Univ., Okayama, Japan): *Physics in Super-Kamiokande and Hyper-Kamiokande,.* **(S1-I5)**
4. **Oyama Yuichi** (KEK, Tsukuba, Japan): *What we have learned from our experience with Kamioka-related neutrino experiments.* **(S1-I6)**
5. **Le Anh Thu** (Univ. of Connecticut, Mansfield, USA): *Atoms and molecules in ultrafast intense laser pulses and altosecond physics: semiclassical and quantum perspectives.* **(S1-I1)**
6. **Nguyen Hai Chau** (Univ of Siegen, Siegen, Germany): *Measurements in quantum mechanics: from decoherence to ultradecoherence.* **(S1-I3)**
7. **Nguyen Quoc Hung** (IQI, VNU, Hanoi, Viet Nam): *Quantum computation as a tool to study physics.* **(S1-I8)**
8. **Nguyen The Toan** (HUS, Hanoi, Viet Nam):

### SECTION 2
### "*Physics at large scales and quantum phenomena*"

#### INVITED TALKS

1. **Kanno Sugumi** (Kyushu Univ., Fukuoka, Japan): *Gravitational quantum effects.* **(S2-I5)**
2. **Kurihara Yoshimasa** (KEK, Tsukuba, Japan): *Quantum GraviElectroDynamics.* **(S2-I2)**
3. **Lee Bum-Hoon** (Sogang Univ, Seoul, Korea): *The Cosmology with the Gauss-Bonnet curvature and WIMP constraints.* **(S2-I9)**
4. **Mukohyama Shinji** (YITP & RESCEU, Japan): *Gravity and cosmology beyond general relativity.* **(S2-I7)**
5. **Nguyen Quynh Lan** (Phenikaa Univ., Hanoi,VietNam): *Searches for dark matter using gravitational-wave detectors ((of LIGO-Vigo-KAGRA)).* **(S2-I4)**
6. **Nguyen Nhat Minh** (IMPU, Tokyo, Japan): *Cosmological tests of gravity, from DESI to PFS: What millions of galaxies have to say.* **(S2-I10)**
7. **Park Seong Chan** (Yonsei Univ.,Seoul, Korea): *Dark matter: if not WIMP, then what?* **(S2-I3)**
8. **Pi Shi** (ITP-CAS, Beijing, China): *Gravitational wave cosmology* **(S2-I8)**
9. **Takada Masahiro** (IPMU, Tokyo, Japan):

*Critical properties of conformal field theory at the boundary of the AdS/CFT correspondence and its relations in condensed matter physics.* **(S1-I9)**

9. **Nguyen Xuan Dung** (ICISE, Quy Nhon, Viet Nam):
   *Gravitons in fractional quantum Hall: From theory to experiment.* **(S1-I7)**

## CONTRIBUTED TALKS

1. **Chen Chao** (IHEP, Beijing, China):
   *(Semi-)leptonic D decays at BESIII* **(S1-C5)**
2. **Dao Xuan Viet** (HUST, Hanoi, Viet Nam):
   *Monte Carlo studies of the two-dimensional XY model with four-fold anisotropy.* **(S1-C9)**
3. **Nguyen Duy Huy** (HUS, Hanoi, Viet Nam):
   *Unlocking carbon cluster diversity: A swarm intelligence and machine-learning toolkit.* **(S1-C11)**
4. **Nguyen Hai Phong** (HUS, Hanoi, Viet Nam):
   *Magnetic and magneto-caloric investigation of amorphous systems in the description of disordered Ising model.* **(S1-C10)**
5. **Nguyen Hoang Vu** (JINR, Dubna, Russia):
   *Color superconductivity in general dimension via holography.* **(S1-C13)**
6. **Nguyen Minh Truong** (DuyTan Univ., Danang, Vietnam):
   *The status of the COMET experiment at J-PRAC*. **(S1-C6)**
7. **Nguyen Thi Dung** (HUS, Hanoi, Viet Nam):
   *The commissioning and physics prospects of time of flight detector in the T2K ND280 upgrade.* **(S1-C4)**
8. **Nguyen Thi Hai Yen** (IOP, Hanoi, Viet Nam):
   *Resistivity characteristics near the metal–insulator transition in the half-filled Anderson–Hubbard model.* **(S1-C12)**
9. **Prasad Vindhyavasini** (Jilin Univ., Changchun, China):
   *New physics searches at BESIII.* **(S1-C3)**
10. **Ta Duy Hoang** (NUS, Singapore):
    *A hierarchy of efficient bounds on quantum capacities.* **(S1-C8)**

*Large scale structure.* **(S2-I1)**

10. **Yu Haibo** (Univ. of California, Riverside, USA):
    *The small-scale Universe and the nature of dark matter.* **(S2-I6)**

## CONTRIBUTED TALKS

1. **Do Quoc Tuan** (Phenikaa Univ., Hanoi, Viet Nam):
   *Anisotropic inflation in light of the ACT DR6 data.* **(S2-C1)**
2. **Kavya N. S.** (CHRIST (Deemed to be Univ.), India):
   *Can f(Q) gravity alleviate tension?* **(S2-C7)**
3. **Kieu Thi Ny** (Van Lang Univ., HCM city, Viet Nam):
   *From cosmic rays to lightning flashes: high-energy phenomena observed by the telescope array.***(S2-C2)**
4. **Matthew Paul** (Nat. Univ. of Malaysia)**,**
   *Sustaining Traversable Wormholes in Braneworld Cosmology.* **(S2-C5)**
5. **Natthason Autthisin** (Khon Kaen Univ., Thailand):
   *Gravitational wave echoes from three-form black hole.* **(S2-C4)**
6. **Neeraj Kumar** (Walailak Univ., Thailand)**,**
   *Renyi constraints on black hole merger.* **(S2-C9)**
7. **Pang Peter** (NIKHEF, Amsterdam, Netherland):
   *Revealing tensions in neutron star observations with pressure anisotropy.* **(S2-C3)**
8. **Sai Swagat Mishra** (BITS, Hyderabad, India):
   *Padé cosmography and its insight into teleparallel gravity.* **(S2-C8)**
9. **Khalid Sàiullah (**Quaid-i-Azam University, Islamabad, Pakistan**):**
   *Charged black holes in Lovelock gravity.* **(S2-C10)**
10. **Rakesh K Jha** (BITS,Hyderabad, India )**,**
    *Four fold path to Thermality: Inequivalent purifications of Rindler wedge.* **(S2-C6)**

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| 11. **Tran Minh Hieu** (HUST, Hanoi, Viet Nam):<br>*Type-1 two Higgs doublet model: data fitting and detection ability.* **(S1-C1)**:<br>12. **Vo Van Thuan** (ITAR, DuyTan Univ., Hanoi, Viet Nam):<br>*Objective reality in Quantum physics.***(S1-C2)**<br>13. **Xei Kaiji** (IHEP, Beijing, China):<br>*Search for CP violation with spin entangled hyperon-sntihyperon pairs at BESIII.* **(S1-C7)** | |

## VHEPS SECTION
(invited talks)

1. **Le Duc Ninh** (Phenikaa univ. Hanoi):
   *Precision calculations and searching for new physics beyond the Standard Model.*
2. **Tran Minh Hieu** (HUST, Hanoi):
   *Theoretical high energy physics in Vietnam - An overview.*
3. **Cao Van Son** (ICISE, Quy Nhon):
   *Recent developments in Neutrino physics.*
4. **Dong Van Thanh** (HUST, Hanoi):
   *Belle II experiments and Vietnam group activities.*

## POSTER SECTION

1. **Das Kaustav** (IACS, Kolkata, India):
   *Quantum entanglement and Hawking radiation.*
2. **Hoang Van Quyet** (HNUE, Hanoi, Vietnam):
   *Quantum-corrected gravitational collapse and multi-messenger signatures: Beyond spherical symmetry in loop quantum gravity.*
3. **Le Cam Vi** (ICISE, Quy Nhon, Viet Nam)**:**
   *Fourier transformation for non-parametric analysis of neutrino oscillation*
4. **Mai Hong Hanh & Cao Dinh Son (**University of Engineering and Technology, VNU, hanoi**):**
   *Optical properties of au-ion-implanted ZnO nanorods: A comparative study with Au nanoparticle deposition.*

5. **Nguyen Hoang Anh** (Phenikaa univ., Hanoi, Viet Nam):
   *Quantum neural networks force field.*

6. **Nguyen Tuan Duy (**IOP, Hanoi, Viet Nam):
   *A flavor-dependent U(1) extension for flavor puzzle, neutrino mass, and dark matter.*

7. **Nguyen Van Duy** (Phenikaa univ., Hanoi, Viet Nam):
   *Quantum simulations of neutrino oscillations.*

8. **Nguyen Vo Nguyen Huy** (HUST, Hanoi, Viet Nam):
   *Phase transition of 2D Ising model with J_x -J_y-J_a -J_b interaction.*

9. **Nurpeisoov Aiken** (Kazakh Nat. Univ., Kazakhstan, Viet Nam):
   *Experimental study of the $^{11}B(^{10}B, ^{9}Be)^{12}C$ reaction at 41.3 MeV.*

10. **Pham Dinh Duy** (HUST, Hanoi, Viet Nam):
    *Shaped control pulses for high-fidelity single-qubit gates.*

11. **Pham Phuong Anh** (HUST, Hanoi, Viet Nam):
    *Hamiltonian-based precise and efficient neutrino oscillation probability computations for neutrino experiments.*

12. **Pham Van Ky** ( IOP, Hanoi, Viet Nam):
    *The perturbative f (R) theory: non-static charged black hole and embedding in the background of the FLRW cosmology, uniqueness of solutions, TOV equation.*

13. **Praveen Kumar Dhankar,**
    Statistical Constraints on Anisotropic Bianchi-III Cosmology in f(R, T)-Gravity Using MCMC Methods

14. **Quách Khánh Đức** (HUST, Hanoi, Viet Nam)
    *Testing the maximum violation of the Leggett-Garg inequality with neutrino oscillation measurement.*

15. **Tran Phan Thuy Linh** (HNUE, Hanoi, Viet Nam):
    *First-principles analysis of structural and electronic characteristics of Si-, Ge-, and Sn-based Xene surfaces under CO or $NO_2$ adsorption.*

16. **Tran Thi Thanh Huyen** (Phenikaa univ., Hanoi, Viet Nam):
    *Input – Output theory for a superconducting qubit array coupled to a transmission line.*

17. **Tran Viet Hung** (Phenikaa university, Hanoi, Viet Nam):
    *Machine learning force field*.

18. **Trương Minh Anh** (HUST, Hanoi, Viet Nam):
    *Unparticle effects on the scatterings of axion-like particles.*

19. **Truong Thanh Sang** (ICISE, Quy Nhon, Viet Nam):
    *Development of SiPM electronics for radiation detection and tomographic reconstruction.*

20. **Vu Van Huong** (Phenikaa univ., Hanoi, Viet Nam): Quantum:
    *Simulation of collective neutrino oscillations.*