



## International Conference on Women in Physics

### Country posters

Each country is invited to give a 90 second presentation summarising their poster in the following sessions in the given order. These presentations will take place in the Great Hall

#### Monday 17 July 15:00–15:30

**Chair:** Averil Macdonald

- CP1.1 Areas of action – Equal opportunities for women and men in physics in Germany**  
A Bossmann, German Physical Society ,Germany
- CP1.2 The Tunisian Experience for Women in Physics**  
S Jaziri, Faculty of Sciences of Bizerte, Tunisia
- CP1.3 Iranian women in faculty positions in Physics**  
A Irajizad, Sharif university of Technology, Iran
- CP1.4 Gender Equality in Research: Lithuanian is starting modernization of research organizations performing Physics Research**  
D Satkovskiene, Vilnius University Institute of Theoretical Physics and Astronomy, Lithuania
- CP1.5 Trend and status of Women in Physics in Uganda**  
F Mutonyi D'ujanga, Makerere University, Uganda
- CP1.6 Strategies and results for promoting participation of women in physics in Mexico: demographics and short timescale aims**  
L Romero-Salaza, Univeristy of the State of Mexico, Mexico
- CP1.7 How successful are women in physics in Ireland?**  
Y Kavanagh, Institute of Technology Carlow, Ireland
- CP1.8 Building Bridges for Women Participation in Physics, Zambia**  
M Kawesha, Cancer Diseases Hospital, Zambia
- CP1.9 Initiatives to mentoring women pursuing physics as education and career in Bangladesh**  
S Choudhury, University of Dhaka, Bangladesh
- CP1.10 Update on women in physics in Finland**  
J Ott, Helsinki Institute of Physics, Finland
- CP1.11 Woman in Physics in Japan**  
M Nojiri, KEK, Japan

#### Monday 17 July 16:00–16:30

**Chair:** Averil Macdonald

- CP2.1 Women in Physics in Zimbabwe**  
H Danga, Midlands State University, Zimbabwe
- CP2.2 The Current situation of women physicist in Albania**  
A DEDA, Professional College of Tirana, Albania



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- CP2.3 Following the Pizan's paradigm to open a free path without gender barrier for Physicists in Argentina**  
M Frechero, Universidad Nacional del Sur, Argentina
- CP2.4 Women in physics in Armenia. Why so few?**  
M Zazyan, YERPHI, Armenia
- CP2.5 Charter for Gender Fairness at Conferences in France**  
V Pierron-Bohnes, French Physical Society-Femmes&Sciences, France
- CP2.6 Women in Physics in Nigeria: Advances and Challenges (2014–2017)**  
I Fuwape, Federal University of Technology, Akure, Nigeria
- CP2.7 Meeting of Women Physicists in Peru–February 11, 2016**  
M Cerón Loayza, San Marcos University, Peru
- CP2.8 Features of academic career of Women-Physicists in Russia**  
E Ermolaeva, Moscow Lomonosov State Universit, Russia
- CP2.9 Update on the Status of Women in Physics Canada**  
A Predoi-Cross, Canadian Association of Physicists, Canada
- CP2.10 Progress to date: Women in Physics in South Africa**  
M Diale, University of Pretoria, South Africa

### Tuesday 18 July 14:30–15:30

**Chair:** Val Gibson

- CP3.1 Current Status of Women in Physics in Taiwan**  
Y Chen, National Cheng Kung University, Taiwan
- CP3.2 Women in Physics in Uruguay: Current situation and perspectives**  
C Stari, UdelaR, Uruguay
- CP3.3 Gender Status in the Indian Physics Profession: A report**  
R Lekshmikuttyamma, Indian Institute of Space Science & Technology, India
- CP3.4 The status of Egyptian women physicists**  
M Mohsen, Ain Shams University, Egypt
- CP3.5 Promotion of Physics education among females**  
N Shrestha, Tribhuvan university, Nepal
- CP3.6 Gender Imbalance in a Number of PhD Physicist and the Key Decision-Making Positions in the Republic of Serbia**  
M Pavkov-Hrvojević, University of Novi Sad, Serbia
- CP3.7 Women in Physics in the United States: Reaching toward equity and inclusion**  
G Cochran, Rutgers University, United States



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- CP3.8 Towards gender parity in the sciences and physics in Morocco**  
M Bettachy, University Hassan, Morocco
- CP3.9 Gender balance in natural science: a case study of Belarus**  
I Tashlykova-Bushkevich, Belarusian State University of Informatics and Radioelectronics, Belarus
- CP3.10 Women in Physics in Ecuador: Ways to Encourage Other Women to Go Into Physics**  
S Guitarra, Universidad San Francisco de Quito, Ecuador
- CP3.11 The Dutch F0m/f approach towards gender balance in physics**  
A de Hoogh, Dutch National Research Organisation, Netherlands
- CP3.12 Outreach Activities: Physics Department University of Dar es Salaam, Tanzania**  
M Samiji, University of Dar es Salaam, Tanzania
- CP3.13 Pakistan Country Report**  
A Qamar, University of Peshawar, Pakistan
- CP3.14 On the Road to Equality**  
B Gabrys, Institute of Physics, United Kingdom
- CP3.15 Shortage of Women teaching Physics in Cameroonian Universities**  
M Boyomo, University of Yaounde I, Cameroon
- CP3.16 Activities of The Women Committee of Korean Physical Society**  
O Chung, Sunchon National University, Korea, Republic of (South Korea)
- CP3.17 Women in Physics in Australia 2017**  
P Maasoumi, Women in Physics in Australian institute of Physics, Australia
- CP3.18 Women in Physics in Ghana: Our Story**  
A Andam, School of Nuclear and Allied Sciences, Ghana
- CP3.19 The Arab Spring and its Impact on Women Physicists in Yemen “Struggling Case”**  
S Ali, Sana’a University, Yemen
- CP3.20 Women and Physics in Italy: Numbers, Projects, Actions**  
S Croci, University of Parma, Italy
- CP3.21 Women in Physics of Chinese Physical Society**  
K Jin, Institute of Physics, China



# International Conference on Women in Physics

## Science posters

Each presenter is invited to give a 2 minute presentation summarising their poster in the following parallel sessions in the order given. These parallel sessions take place 12:00–12:45 Wednesday 19 July.

### Session 1

#### Asrophysics and Cosmology, Nuclear, Particle and Medical Physics

*Physics West 117*

- P1.1 Characterization of two Meteorites Chondrites by Physical techniques**  
M Cerón Loayza, San Marcos University, Peru
- P1.2 The MicroBooNE Experiment**  
J Esquivel, MicroBooNE Collaboration, United States
- P1.3 Cosmological Evolution of Supermassive Black Holes**  
S Chatterjee, Presidency University, India
- P1.4 Effect of electron streaming on the kinetic instability of drift magnetosonic wave in solar wind**  
H Naim, Govt. College University, Pakistan
- P1.5 Infrared observations of Jupiter's northern lights**  
R Johnson, University of Leicester, United Kingdom
- P1.6 Biophysical Regulation of Thermodynamic Effects on Type 2 Diabetes**  
T Presley, Winston Salem State University, United States
- P1.7 Investigations and Recovery of the meteorite felt on Nubian Desert in Sudan**  
T Shatir, University of Jeddah, Saudi Arabia
- P1.8 The CUORE Experiment**  
L Gladstone, MIT, United States
- P1.9 Rapid Nuclear Forensics Analysis Via Machine Learning Enabled LIBS**  
B Bhatt, University of Nairobi, Kenya
- P1.10 The Environments of Accreting Supermassive Black Holes in the Nearby Universe**  
P Shastri, Indian Institute of Astrophysics, India
- P1.11 Optical properties of human jawbone, spongy bone and human bone substitute CERABONE® in spectral range from 0.2 to 2.5 THz**  
A Nikoghosyan, Yerevan State University, Armenia
- P1.12 Observation of an Excited Bc Meson State with the ATLAS Detector**  
S Seidel, University of New Mexico, United States
- P1.13 Charged Particle Stopping Power Experiments on Orion**  
J Coltman, AWE, United Kingdom
- P1.14 Resurrecting Quartic and Quadratic inflaton potentials in two-field inflationary model**  
S Das, Department of Physics, India



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### **P1.15 The Muon g-2 experiment at Fermilab**

R Bjorkquist, Cornell University, United States

### **P1.16 Determination of CP Violation in the lepton sector**

S Goswami, Physical Research Laboratory, India

## **Session 2**

### **Condensed Matter Physics**

*Aston Webb C-block LT*

### **P2.1 Bio-Hydrodynamic Approach to Model Fish Lammellae as Microfluidic Channels**

L Romero-Salazar, University of the State of Mexico , Mexico

### **P2.1 Computational modelling of defects and lattice vibrations in photovoltaic materials**

L Whalley, Imperial College London, United Kingdom

### **P2.1 Finite-size effects on Griffith phase in lanthanum strontium manganites**

J Lin, National Taiwan University, Taiwan

### **P2.4 Electrical Characterisation of electron beam exposure induced defects in epitaxially grown n-type silicon**

H Danga, Midlands State University, Zimbabwe

### **P2.5 First Shell Low-Temperature Study Of Zincblende-Type ZnS By EXAFS Technique Using Cumulant Method**

B Thiodjio Sendja, University of Yaounde, Cameroon

### **P2.6 Thermal Admittance and Deep Level Transient Spectroscopy of methylammonium lead-bromide ( $\text{CH}_3\text{NH}_3\text{PbBr}_3$ ) perovskite solar cells**

M Diale, University of Pretoria, South Africa

### **P2.7 Microstructure and chemical composition effects on hydrogen behavior in rapidly solidified Al-Cr alloys**

I Tashlykova-Bushkevich, Belarusian State University of Informatics and Radioelectronics, Belarus

### **P2.8 Modeling Set and Reset Operation in HfO<sub>2</sub>-based Resistive Random Access Memories**

S Guitarra, University San Francisco Quito, Ecuador

### **P2.9 Structured beams generated from a spatial light modulator and laser cavities**

T Lu, National Taiwan Normal University, Taiwan

### **P2.10 Complex Refractive Index of Aerosol Samples**

S Mico, University of Vlora, Albania

### **P2.12 Tunable and switchable erbium-doped fiber laser using multimode-fiber based filter**

A Khattak, Wilfrid Laurier University, Canada

### **P2.13 Nonlinear electrostatic waves in dusty plasmas with anisotropic ions pressure and super-thermal electrons**

A Qamar, Kohat University of Science and Technology , Pakistan

### **P2.14 Impacts of the base doping rate and the emitter doping rate on the internal quantum efficiency**

R Konate, University Ouaga I Prof Joseph KI Zerbo, Burkina Faso



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**P2.15 Measuring the deviation from the superposition principle in interference experiments**

U Sinha, Raman Research Institute, India

**P2.16 Defect introduction by inductively coupled plasma etching in silicon**

H Danga, Midlands State University, Zimbabwe

**P2.17 Quantum Field Theory in Accelerated Frames**

A Dasgupta, University of Lethbridge, Canada

**P2.18 Much ado about knotting**

D Sugic, University of Bristol, United Kingdom

### Session 3

#### Environmental Physics

*Great Hall*

**P3.1 The impact of the extensive use of phosphate fertilizers on radioactivity levels in farm soil in Tanzania**

N Mohammed, University of Dar es Salaam, Tanzania

**P3.2 Particulate Matter Concentrations: Urban Versus Suburban Areas of Vlora**

S Mico, University of Vlora, Albania

**P3.3 Validity assessment of the global tidal models in the Persian Gulf and Oman sea using from the coastal tide gauges and the IOS Software**

N Khodabakhsh Shahrestani, Guilan Education Organization, Iran

**P3.4 Indoor radon mapping: The Ghanaian strategy Part 1**

I Nsiah-Akoto, Ghana Atomic Energy Commission, Ghana

**P3.5 The Distribution of Metals in Different Parts of the Alyssium Murale Plant**

A Deda, Professional College of Tirana, Albania

**P3.6 Bio-material from argan shells: Size effect on thermal conductivity**

A Derouiche, Hassall University of Casablanca, Morocco

**P3.7 Rare Earth Elements (REEs), and Th in the Pra River Basin of Ghana**

C Anderson, University of Cape Coast, Ghana

**P3.8 Temporal Variation of Volumetric Water Content**

O Owoola, Federal University of Technology, Nigeria

**P3.9 Comparative Assessment of a New Hydrological Modelling Approach for Prediction of Runoff in Gauged and Ungauged Basins, and Climate Change Impacts Assessment**

C Gaba, University of Abomey-Calavi, Benin

**P3.10 Assessment of Indoor and Outdoor Gamma Radiation Exposure Levels in Selected Residential Buildings across Ondo State, Nigeria**

B Oladele, Federal University of Technology, Nigeria



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- P3.11 Identification of Heavy Metals Concentration in Groundwater**  
A Deda, Professional College of Tirana, Albania
- P3.12 Structural characterization of the soils of plantations of sugar cane of Chiclayo-Region Lambayeque by Physical Techniques**  
J Aleida, University Cesar Vallejo, Peru
- P3.13 A preliminary study on organoclays from two Peruvian clay pits**  
M Cerón Loayza, San Marcos University, Peru
- P3.14 Study of Radium and Radon Exhalation Rate in Soil Sample, Offinso Municipality**  
I Nsiah-Akoto, Ghana Atomic Energy Commission, Ghana
- P3.15 Natural by-products inclusion in cementitious materials for energetically efficient buildings**  
L Romero-Salazar, Mexico State University, Mexico
- P3.16 Organic Montmorillonite- PolyVinyl Alcohol-Co-PolyAcrylic Nanocomposite Hydrogel For Heavy Metal Water Decontamination**  
M Mohsen, Ain Shams University, Egypt
- P3.17 Performance of Regulatory Inspection on Radiation Emitting Devices and Foodstuffs in Zanzibar, Tanzania**  
F Khamis, Tanzania Atomic Energy Commission, Tanzania

### Session 4

#### Nanoscale Physics

##### WG 5

- P4.1 The Effect of Growth Temperature on Magnetic Properties of Electrocrystallized Iron Oxide Nanoparticles in the Presence of B-cyclodextrin**  
S Mosivand, Lorestan University, Iran
- P4.2 Electronic structures of ZnO thin film at the interface with graphene**  
R Jung, Kwangwoon University, Korea, Republic of (South Korea)
- P4.3 Wide band gap semiconductors as ionising radiation detectors**  
A Lohstroh, University of Surrey, United Kingdom
- P4.4 Growth and Characterization of Zinc Silicate Nanowires**  
W Mahmood, COMSATS Institute of Information and Technology, Pakistan
- P4.5 Investigation of Mechanical Properties for Nanoporous and Bulk Li-Mn-O Composites Materials**  
R Ledwaba, University of Limpopo, South Africa
- P4.6 Characterization of  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> nanowires and their application in CO gas sensors**  
M Ho, National Chung Hsing University, Taiwan
- P4.7 Size-controlled Ag nanoprisms synthesized by seed-induced growth method**  
X Sun, Harbin Institute of Technology, China
- P4.8 Fabrication and Characterization of Carbon Nanotube/ Cellulose Composite Paper**  
M Kazi, University of Dhaka, Bangladesh



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- P4.9 Magnetic and structural properties of Co-Ni nano-dumbbells**  
V Pierron-Bohnes, French Physical Society, France
- P4.10 Graphene-magnetite nanocomposites for hyperthermia applications**  
K Akram, COMSATS Institute of Information technology, Pakistan
- P4.11 Effect of organic materials used in the synthesis on the emission of CdSe Quantum Dots**  
H Yang, Pusan National University, Korea, Republic of (South Korea)
- P4.12 DC electrical conductivity of Plasma Polymerized 2-(diethylamino)ethylmethacrylate Thin Films**  
T Afroze, Ahsanullah University of Science and Technology, Bangladesh
- P4.13 Green stabilization of magnetite nanoparticles**  
H Kahil, Ain Shams University, Egypt
- P4.14 Non-noble Metal Catalyst Sensitized Si Nanowires-array Photoelectrodes for Water Splitting**  
S Hu, National Taiwan Normal University, Taiwan
- P4.15 Semiconductor Nanowires: The Route to Nanoscale Terahertz Technology**  
J Boland, University of Oxford, United Kingdom

### Session 5

#### Women in Physics in the Workplace

Aston Webb WG 12

- P5.1 European Platform of Women Scientists -The Voice of Women Scientists in EU Research Policy**  
D Satkovskiene, Vilnius University Institute of Theoretical Physics and Astronomy, Lithuania
- P5.2 Looking at How to Improve Diversity in the Nuclear Sector in the UK**  
D Watson, Sellafield Ltd, United Kingdom
- P5.3 Diversity and Inclusivity at AWE**  
J Coltman, AWE, United Kingdom
- P5.4 Negotiating a Career in Physics**  
A Dasgupta, University of Lethbridge, Canada
- P5.5 Project JUNO**  
J Dyer, Institute of Physics, United Kingdom
- P5.6 Unconscious gender bias in academia: from PhD students to professors**  
K Poppenhaeger, Queens University Belfast, United Kingdom
- P5.7 Recent Activities of Gender Equality Promotion in the Physical Society of Japan**  
T Tohyama, Tokyo University of Science, Japan
- P5.8 GENERA Gender-in-Physics days in Europe**  
S Hesping, Dutch National Research Organisation, Netherlands





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- P5.9 Women in Physics Leadership**  
L McCullough, University of Wisconsin-Stout, United States
- P5.10 Japanese Women Researchers: Are They Active? – Trends in Numbers of Members in JSAP**  
N Kasai, NTT Basic Research Laboratories, Japan
- P5.11 Gender equality and successful scientific research are strongly tied together**  
E Boniolo, University of Bristol, United Kingdom
- P5.12 The Science in Australian Gender Equity (SAGE) Pilot of Athena SWAN**  
S Maddison, Swinburne University of Technology, Australia
- P5.13 Actions for Gender Equality in the Japan Society of Applied Physics**  
N Matsuki, Kanagawa University, Japan
- P5.14 Supporting Academic Women in Physics in the U.S.: Peer Mentoring with eAlliances**  
B Cunningham, American Association of Physics Teachers, United States
- P5.15 Gender Balance Initiatives as part of European Network COST Action Nanoscale Quantum Optics**  
R Oulto, University of Bristol, United Kingdom
- P5.16 Repositioning the gender gap in UK physics: mapping pathways to success**  
J Miller-Friedmann, Oxford, United Kingdom
- P5.17 Improving Gender Balance**  
J Rowson, Institute of Physics, United Kingdom
- P5.18 Physics and Gender**  
S Mosivand, Lorestan University, Iran
- P5.19 LGBT+**  
J Dyer, Institute of Physics, United Kingdom
- P5.20 BASNET Forumas Association Activities in the Baltic States Region**  
D Satkovskiene, Vilnius University Institute of Theoretical Physics and Astronomy, Lithuania

### Session 6

#### Teaching Girls and Women in Physics

*Aston Webb G33*

- P6.1 The Importance of Female Role Models in Schools: Evidence for a Female ‘Brian Cox’**  
J Boland, University of Oxford, United Kingdom
- P6.2 Women in Acoustics at Moscow University**  
E Ermolaeva, Moscow Lomonosov State University, Russia
- P6.3 A model of culturally relevant pedagogy in physics**  
A Johnson, St. Mary’s College of Maryland, United States
- P6.4 Keeping Girls in Physics: Eight Strategies**  
S Hayton, King Edward High School, Birmingham, United Kingdom



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- P6.5 Relationship between stereotype threat and standardized test performance in physics**  
C Singh, University of Pittsburgh, United States
- P6.6 Situation of female Physics students in the National Autonomous University of Mexico**  
B González-Fernández, University of Puebla, Mexico
- P6.7 How Imperial College London Support Women in Physics**  
J Wade, Imperial College London, United Kingdom
- P6.8 Enhancing female student's interest and motivations on physics by helping to construct their own computer simulations**  
W Oh, Chungbuk National University, Korea, Republic of (South Korea)
- P6.9 Teaching Introductory Undergraduate Classes using Multimedia Resources**  
A Predoi-Cross, Canadian Association of Physicists, Canada
- P6.10 Training an all-female undergraduate team to design a microscope incubator and microfluidic devices for single cell studies**  
J Johnson, St. Catherine University, United States
- P6.11 Initiating and sustaining cultural change in undergraduate physics departments**  
A Johnson, St. Mary's College of Maryland, United States
- P6.12 Developing Self-Efficacy in the Physics Classroom through hands-on Projects**  
A Richardson, Chandler Gilbert Community College, United States
- P6.13 Exploring Pedagogical Content Knowledge of Physics Instructors Using the Force Concept Inventory**  
C Singh, University of Cincinnati, United States
- P6.14 Identifying the characteristics of assessment questions with a particularly large attainment gap by gender**  
S Jordan, Open University, United Kingdom
- P6.15 Compare effect of hybrid teaching with traditional teaching on learning of physics**  
N Khodabakhsh Shahrestani, Guilan Education Organization, Iran
- P6.16 Identifying gender variations grade achievement for individual modules**  
A Lohstroh, University of Surrey, United Kingdom
- P6.17 Gender differences in BSc and MPhys degree pathways in the UK**  
F Loughton, University of Bath, United Kingdom