

## **Session Program**

**13-16 Dec 2021**



**3<sup>rd</sup> WORLD CONFERENCE ON PHYSICS EDUCATION**

*Innovating physics education: From research to practice*

**WCPE III 2021 Hanoi, VIETNAM**

***Parallel 10 - Wroclaw***

## Thursday 16 December

11:00

### Parallel 10 - Wroclaw: Presentation 10.1 - Contemporary and modern physics

**Session** |

**Location:** Zoom 3, Zoom ID: 701 110 5119, Passcode: 12345, Keep Zoom ID, Passcode confidential. This is only for WPCE-3 participants. |

**Conveners:** Bartosz Strzelczyk, Ngoc Diep Ta, Maria Bondani

11:00-11:20

#### State of the art of the sum over paths approach in quantum mechanics education

**Speaker**

Massimiliano Malgieri

11:20-11:40

#### Didactics for Contemporary physics and modern physics teaching at Strathmore University (Nairobi-Kenya)

**Speakers**

Mr Joseph Obbo, Prof. Dominique Persano Adorno

11:40-12:00

#### The Second Quantum Revolution at school: teaching and learning Quantum Physics in the context of Quantum Technologies

**Speaker**

Dr Maria Bondani

12:00-12:20

#### Understanding the relation between classical and quantum mechanics: prospects for undergraduate teaching

**Speaker**

Adele Naddeo

12:30

11:00

### Parallel 10 - Wroclaw: Presentation 10.2 - Experiments and practical work in physics education

**Session** |

**Location:** Track 3, Zoom ID: 701 110 5119, Passcode: 12345, Keep Zoom ID, Passcode confidential. This is only for WPCE-3 participants. |

**Conveners:** Ngoc Diep Ta, Jonathan Michael Keartland, Dr Paul Logman

11:00-11:20

#### Electrical Transport Measurements from First Principles: a Senior Undergraduate Experiment

**Speaker**

Jonathan Michael Keartland

11:20-11:40

#### Analysis of Smartphone Recorded Transit Light Curves via Astronomical Software

**Speaker**

Árpád Bordás

11:40-12:00

#### Two simplified experiments for an estimation of surface tension

	<p><b>Speaker</b> Ms Giulia Termini</p>
	<p>12:00–12:20 <b>Video Tutorials on Selected Topics in the Introductory-Level Dynamics</b></p> <p><b>Speakers</b> Dr Tetyana Antimirova, Tetyana Antimirova</p>
12:30	
11:00	<p><b>Parallel 10 - Wroclaw: Presentation 10.3 - School physics education</b></p> <p><b>Session</b>   <b>Location:</b> Zoom 3, Zoom ID: 701 110 5119, Passcode: 12345, Keep Zoom ID, Passcode confidential. This is only for WPCE-3 participants.   <b>Conveners:</b> Magdalena Kersting, Ewa Dębowska, Ngoc Diep Ta</p>
	<p>11:00–11:20 <b>The many roles of metaphors in learning and doing physics</b></p> <p><b>Speaker</b> Magdalena Kersting</p>
	<p>11:20–11:40 <b>Student Difficulties with the Propagation of a Pulse in a String</b></p> <p><b>Speaker</b> Mr Muhammad Aswin Rangkuti</p>
	<p>11:40–12:00 <b>Constructing a diagnostic instrument for wave optics</b></p> <p><b>Speaker</b> Katarina Jelcic</p>
12:30	
11:00	<p><b>Parallel 10 - Wroclaw: Presentation 10.4 - Contemporary and modern physics</b></p> <p><b>Session</b>   <b>Location:</b> Zoom 3, Zoom ID: 701 110 5119, Passcode: 12345, Keep Zoom ID, Passcode confidential. This is only for WPCE-3 participants.   <b>Conveners:</b> Robert Bryl, Dat Nguyen Duc, Kristina Zuza</p>
	<p>11:00–11:20 <b>University students understanding of the moment of inertia in a rotating rigid body</b></p> <p><b>Speaker</b> Dr Kristina Zuza</p>
	<p>11:20–11:40 <b>The real medical situation for Physics teaching</b></p> <p><b>Speakers</b> Prof. Oriana Fiore, Oriana FIORE, Prof. Roberto Capone</p>
	<p>11:40–12:00 <b>Development of a New Study Module about Knowledge Acquisition in Science</b></p> <p><b>Speaker</b> Jana Biedenbach</p>
	<p>12:00–12:20 <b>Terrestrial and Extra-terrestrial Radioactivity</b></p> <p><b>Speaker</b> Vera Montalbano</p>
12:30	

11:00

## Parallel 10 - Wroclaw: Symposium 10.1 - Supporting educational transitions in physics

**Session** |

**Location:** Zoom 1 , Zoom ID: 701 110 5127, Passcode: 12345, Keep Zoom ID, Passcode confidential. This is only for WPCE-3 participants. |

**Conveners:** Eilish McLoughlin, Phuong Linh Tran

12:30

11:00-12:30

### Supporting educational transitions in physics

**Speaker**

Dr Eilish McLoughlin