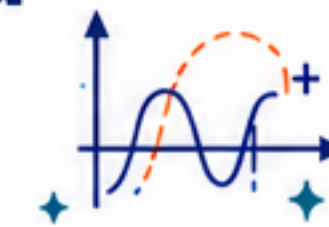


# CONFERENCE ON NON-DIGITAL GAME-BASED LEARNING IN PHYSICS AND STEM DISCIPLINES



VENUE: ICTP SciFabLab



DATES: 23-25 JUNE 2026

## TUESDAY 23 JUNE 2026

### MORNING

|               |  |   |
|---------------|--|---|
| 9:00 – 9:30   |  | Registration  |
| 9:30 – 10:00  |  | Welcome and Introduction to the Workshop<br>Carlo Fonda, Gaia Fior (ICTP, Italy)            |
| 10:00 – 10:30 |  | “Education through Table top games”<br>Sara Ricciardi, remote talk<br>(INAF-Bologna, Italy) |
| 10:30 – 11:00 |  | Coffee/Game Break   |
| 11:00 – 12:00 |  | “The psychology of game-based learning”<br>Alan Mattiassi (Game psychologist)               |

### AFTERNOON

|               |  |  |
|---------------|--|--|
| 13:30 – 14:30 |  | “Hands-on game session - Plastic fighters”<br>Diego Manna (White Cocal Press, Italy)   |
| 14:30 – 15:30 |  | “Analysis of the game”<br>Diego Manna (White Cocal Press, Italy)   |
| 15:30 – 16:00 |  | “Exploring Energy Transition Through Game-Based Learning: The “Poweri noi! Watt should we do?” Game”<br>Simone Restelli (Dipartimento di Fisica “Alessandro Volta”, Università degli studi di Pavia, Italy)          |
| 16:00 – 16:30 |  | <b>PARTICIPANT PRESENTATION</b><br>“Step Into Space: Designing a Giant Snakes and Ladders Game for Inclusive Astronomy Outreach”<br>Muhammad Maulidan, (Astronomy Study Center, Universitas Ahmad Dahlan, Indonesia) |

## WEDNESDAY 24 JUNE 2026

### MORNING

|               |  |  |
|---------------|--|--|
| 9:00 – 9:30   |  | “PIXEL (of) the Universe: a Game-Based Learning Study on Students’ NOS Ideas”<br>Sara Ricciardi, remote talk (INAF-Bologna, Italy)   |
| 9:30 – 10:00  |  | “DG Hero Game to deepen learners’ understanding of the Sustainable Development Goals (SDGs) and to stimulate creativity and engagement in Macau community actions”<br>Min Yang, remote talk<br>(United Nations University Institute in Macau, China) |
| 10:00 – 10:30 |  | <b>PARTICIPANT PRESENTATION</b><br>“Inclusive STEM Education in Rural Peru: Non-Digital Learning and Mobile FabLab Approaches”<br>Fajardo Soria George Steve<br>(Geophysical Institute of Peru)  |
| 10:30 – 11:00 |  | Coffee/Game Break  |
| 11:00 – 12:00 |  | “Board games and board game design as a learning tool for complex scientific concepts”<br>Fabio Chiarello<br>(Institute for Photonics and Nanotechnologies IFN-CNR, Italy)   |

### AFTERNOON

|               |  |  |
|---------------|--|--|
| 13:30 – 14:30 |  | “Hands-on game session: Quantum Race: from Mancala to Quantum Mechanics”<br>Fabio Chiarello<br>(Institute for Photonics and Nanotechnologies IFN-CNR, Italy) |
| 14:30 – 15:30 |  | “Analysis of the game”<br>Fabio Chiarello<br>(Institute for Photonics and Nanotechnologies IFN-CNR, Italy)   |
| 15:30 – 17:30 |  | Transfer to Trieste and visit to Modiano (company producing card games) with Stefano Crechici (Modiano, Italy)   |

## THURSDAY 25 JUNE 2026

### MORNING

|               |  |   |
|---------------|--|---|
| 9:00 – 10:00  |  | “The GAME project at Istituto Nazionale Fisica Nucleare”<br>Antonio Sidoti (INFN, Italy)  |
| 10:00 – 10:30 |  | <b>PARTICIPANT PRESENTATION</b><br>“Device-free interactive teaching in a flipped classroom framework for an international group of STEM master degree students”<br>Luca Bonaventura (Politecnico di Milano, Dipartimento di Matematica, Italy) |
| 10:30 – 11:00 |  | Coffee/Game Break   |
| 11:00 – 11:30 |  | <b>PARTICIPANT PRESENTATION</b><br>“Hadron Builders: A Tactile Board Game for the Standard Model”<br>Tunçay Karabulut (Fettah Tamince Vocational and Technical Anatolian Maritime High School, Turkey)  |
| 11:30 – 12:00 |  | <b>PARTICIPANT PRESENTATION</b><br>“Tabletop Games as Low-Cost STEM Teaching Tools in Sub-Saharan Africa: Experiences from Cameroon”<br>Loic Joffree Dessap Fomekong<br>(University of Gustave Eiffel, France)                                  |

### AFTERNOON

|               |  |  |
|---------------|--|--|
| 13:30 – 14:30 |  | “The Game Science Research Center: a cross-institutional community for non-digital game-based learning in STEM”<br>Rita Blanos (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS, Italy) |
| 14:30 – 15:30 |  | “Hands-on game session: Pelagos Sanctuary”<br>Diego Manna (White Cocal Press, Italy)   |
| 15:30 – 16:30 |  | “Analysis of the game”<br>Diego Manna - Rita Blanos<br>(White Cocal Press, OGS, Italy)   |
| 16:30 – 17:00 |  | Discussion and closing of the workshop   |