

# Phose2023

## Workshop on "Photodetectors and sensors for particle identification and new physics searches"

Francesca Di Lodovico (King's College of London) Michael Doser (CERN) Alberto Gola (FBK)  
Kenji Inami (Univ. Nagoya) Rok Pestotnik (Jožef Stefan Institute) Ezio Torassa (INFN Padova)  
Yasemin Altinbilek (CERN)

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### Event summary

November 22	8:30 am - 18:25 pm	Room 31/3-004 Amphitheatre	20 talks
November 22	8:30 pm	Luigia Accademy	social dinner
November 23	9:00 am - 13:20 pm	Room 31/3-004 Amphitheatre	further discussions

<b>MCP-PMT developments for PANDA</b> 31/3-004 - IT Amphitheatre, CERN	<i>Albert Lehmann</i> 08:45 - 09:10
<b>MCP-PMT R&amp;D and quantum efficiency lifetime measurements</b> 31/3-004 - IT Amphitheatre, CERN	<i>Kenji Inami</i> 09:10 - 09:35
<b>Development of hybrid single-photon detector based on microchannel plates and the Timepix4 ASIC</b> 31/3-004 - IT Amphitheatre, CERN	<i>Massimiliano Fiorini</i> 09:35 - 10:00
<b>Characterisation of LAPPDs for RICH applications</b> 31/3-004 - IT Amphitheatre, CERN	<i>Rok Pestotnik</i> 10:00 - 10:25
<b>Photosensors for the Hyper-Kamiokande experiment OD system</b> 31/3-004 - IT Amphitheatre, CERN	<i>Francesca Di Lodovico</i> 10:25 - 10:50
<b>Coffee break</b> 31/3-009 - IT Amphitheatre Coffee Area, CERN	10:50 - 11:10
<b>3" PMTs for Hyper-Kamiokande mPMTs</b> 31/3-004 - IT Amphitheatre, CERN	<i>Aurora Langella</i> 11:10 - 11:35
<b>NUV-Sensitive radiation hardness silicon photomultiplier technologies developed at FBK</b> 31/3-004 - IT Amphitheatre, CERN	<i>Alberto Gola</i> 11:35 - 12:00
<b>Characterisation of SiPM at cryogenic temperatures</b> 31/3-004 - IT Amphitheatre, CERN	<i>Marco Guarise et al.</i> 12:00 - 12:25
<b>Development of integrated housing for SiPM for future RICH detectors</b> 31/3-004 - IT Amphitheatre, CERN	<i>Roberta Cardinale</i> 12:25 - 12:50
<b>SiPMs test for the dual RICH detector at the at the future Electron-Ion Collider</b> 31/3-004 - IT Amphitheatre, CERN	<i>Roberto Preghenella et al.</i> 12:50 - 13:15
<b>Lunch Break</b>	13:15 - 14:20

- MCP-PMT session
- Large area picosecond photodetector
- Photosensors for new physics
- Rad. hard. SiPM dev.
- SiPM cryogenic
- SiPM detector integration
- SiPM for EIC

<b>Single-photon Cameras for Quantum Imaging Applications</b> 31/3-004 - IT Amphitheatre, CERN	<i>Prof. Edoardo Charbon</i> 14:20 - 14:45	} Quantum imaging
<b>SiPMs for Belle II ARICH</b> 31/3-004 - IT Amphitheatre, CERN	<i>Dania Consuegra Rodríguez</i> 14:45 - 15:10	
<b>Characterization of irradiated SiPM for the TOP detector at the Belle II experiment</b> 31/3-004 - IT Amphitheatre, CERN	<i>Jakub Kandra et al.</i> 15:10 - 15:35	} Belle II SiPM PID
<b>R&amp;D for a TOF-like KLM in Belle II upgrade and a muon detector of CEPC based on SiPM and scintillator</b> <i>Dr Wang Xiaolong</i>	<i>remote</i>	
<b>Coffee Break</b> 31/3-009 - IT Amphitheatre Coffee Area, CERN	16:00 - 16:20	
<b>Recent progress in organic semiconductor/polymer blend films for OFETs</b> 31/3-004 - IT Amphitheatre, CERN	<i>Elisabetta Colantoni et al.</i> 16:20 - 16:45	} Organic FET
<b>SiPM studies for the ECL calorimeter of the Belle II detector</b> 31/3-004 - IT Amphitheatre, CERN	<i>Stefano Moneta et al.</i> 16:45 - 17:10	} SiPM Calorimetry
<b>Silicon Photomultipliers for calorimetric applications</b> 31/3-004 - IT Amphitheatre, CERN	<i>Andrea Falcone et al.</i> 17:10 - 17:35	
<b>Quantum sensors for particle identification at HEP</b> 31/3-004 - IT Amphitheatre, CERN	<i>Michael Doser</i> 17:35 - 18:00	} Sensors
<b>Performance of sensor module prototypes for the CMS Barrel Timing Layer</b> 31/3-004 - IT Amphitheatre, CERN	<i>Martina Malberti</i> 18:00 - 18:25	

## Coffee breaks

We have 20' breaks  
Will be served in:  
31/3-009 Amphitheater Cofee Area

## Lunch break

We have 1h 05' break  
Restaurant 2 is the closer to the workshop  
venue

## Social Dinner

Please sign the survey  
if you wish to participate



# Publications

This workshop is an opportunity to compare results of similar or related studies.

Some analysis are probably preliminary, and 25 min are not enough to describe everything. It is important to publish in open access journals to provide more details, get deliverables for our EU projects and new references for future projects.

Every journal with a professional review process is a good choice. Some of us are editor of journals and can provide good APC (article processing charges) conditions.

Michael Doser                      Editor of Journal of Advanced Instrumentation in Science  
<http://journals.andromedapublisher.com/index.php/JAIS>

Christian Joram                      Editor or advisory EB of Nuclear Instruments and Methods  
Peter Križan                              <https://www2.cloud.editorialmanager.com/nima>

Ezio Torassa                              Editors of the special issue of MDPI Sensor  
Francesca Di Lodovico                      «New developments photodectors and sensors for PID»  
[https://www.mdpi.com/journal/sensors/special\\_issues/K01A7TJ4ZI](https://www.mdpi.com/journal/sensors/special_issues/K01A7TJ4ZI)

Ask the information you need and try to publish within few months.