

RD51 Micro Pattern Gaseous Detectors School

 Nov 27, 2023, 8:00 AM → Dec 1, 2023, 6:05 PM Europe/Zurich

 40/S2-C01 - Salle Curie (CERN)

 Florian Maximilian Brunbauer (CERN) , Mauro Iodice (INFN - Sezione di Roma Tre)

Description The first edition of the **RD51 Micro Pattern Gaseous Detectors School** will take place at CERN from November 27th to December 1st, 2023.

The school focuses on state-of-the-art MPGD technologies. The programme of the school comprises **morning lectures** by world experts in the field offering an overview on gas detectors physics, MPGD technologies, simulation and modelling, readout approaches, manufacturing techniques as well as applications, and **hands-on exercises** on various technologies in the afternoons, with an emphasis on methodologies.

The target audience are PhD students, young scientists and researchers working on gaseous detectors or entering the field.


Students are invited to **present a poster** during a dedicated session of the school.

The school is supported by the RD51 Collaboration to offer **free registration for students**. Accommodation, travel and other expenses have to be covered by the participants. Admission to the school is limited.


The morning **lecture sessions** are open to the community and can be followed in-person or by remote connection. Registration is required.

Applications to the school are open via the "**Registration**" link on the left. The deadline for applications is June 30, 2023.




 CallForApplications...

 EP Newsletter Article

 LabBook-RD51MPG...

 Poster-RD51MPGD...

 School photos

Registration



Lecture Program only

Contact  rd51.mpgdschool@cern.ch

MONDAY, NOVEMBER 27

8:00 AM	→ 9:00 AM	Registration	📍 40/S2-C01 - Salle Curie
9:00 AM	→ 12:30 PM	Lectures: Introduction	📍 40/S2-C01 - Salle Curie
9:00 AM	Welcome ⌚ 10m	Speakers: Florian Maximilian Brunbauer (CERN), Mauro Iodice (INFN - Sezione di Roma Tre)	Intro-RD51MPGDSc...
9:10 AM	Introduction: Gas detectors ⌚ 50m	Speaker: Fabio Sauli (TERA Foundation (IT))	Intro-Sauli.mp4 MWPC TO MPGD C... MWPC TO MPGD C...
10:00 AM	Gas Detector Physics 1 ⌚ 1h	Speaker: Fabio Sauli	GasDetectorPhysic... GAS DETECTORS P... GAS DETECTORS P...
11:00 AM	Break ⌚ 30m		
11:30 AM	MPGD technologies 1 ⌚ 1h	Speaker: Esther Ferrer Ribas (Université Paris-Saclay (FR))	MPGD1-FerrerRibas... MPGD-technologies... MPGD-technologies...
2:00 PM	→ 6:00 PM	Lab exercises	📍 GDD Lab 154/R-007

TUESDAY, NOVEMBER 28


9:00 AM

→ 12:30 PM


Lectures

📍 40/S2-C01 - Salle Curie

9:00 AM

Information ⌚ 5m**Speakers:** Florian Maximilian Brunbauer (CERN), Mauro Iodice (INFN - Sezione di Roma Tre) IntroDay2.pdf

9:05 AM

Gas detector physics 2 ⌚ 55mDischarges and ageing
Resistive electrodes
Gas properties**Speaker:** Piotr Gasik (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE)) GasDetectorPhysic... gasik_MPGD_schoo... gasik_MPGD_schoo...



10:00 AM

MPGD technologies 2 ⌚ 1h**Speaker:** Eraldo Oliveri (CERN) MPDGTechnologies... MPDGTechnologies...

11:00 AM

Break ⌚ 20m

11:20 AM

GEM hole geometry - follow-up ⌚ 10m**Speaker:** Fabio Sauli GEM HOLE SHAPE... GEM HOLE SHAPE... GEMHoles-Sauli.mp4

11:30 AM

Manufacturing techniques ⌚ 1h**Speaker:** Rui De Oliveira (CERN)

12:30 PM → 12:40 PM **School photo**

📍 40/S2-C01 - Salle Curie

2:00 PM → 6:00 PM **Lab exercises**

📍 GDD Lab 154/R-007

6:00 PM → 8:00 PM **Poster session**

📍 500/1-201 - Mezzanine

- Brischetto_posterA...
- CBC_2023_Plakatas...
- CERN_Howin_Saph....
- Changyue_Poster.pdf
- Dopfer.pdf
- Giovannetti.pdf
- MirandaRabelhofer...
- Raheema-Hafeji.pdf
- RichaRai.pdf
- RitaAntonietti.pdf

WEDNESDAY, NOVEMBER 29




9:00 AM → 11:00 AM **Lectures**

📍 40/S2-C01 - Salle Curie

9:00 AM **Information** ⌚ 5m
Speaker: Florian Maximilian Brunbauer (CERN)
 IntroDay3.pdf

9:05 AM **Simulations and modelling 1** ⌚ 55m
Speaker: Rob Veenhof (CERN)
 school3_short.pdf school_short.pdf Simulation-Veenhof....

10:00 AM **Simulations and modelling 2** ⌚ 1h
Speaker: Piet Verwilligen (Universita e INFN, Bari (IT))

 School-Signal-Induc...
  School-Signal-Induc...
  Simulation-Verwillig...

11:00 AM → 12:30 PM **Visits**

 40/S2-C01 - Salle Curie




 Christmas Market
  ChristmasMarket.pdf

2:00 PM → 6:00 PM **Lab exercises**

 GDD Lab 154/R-007

2:00 PM **Simulation** ⌚ 4h

Speakers: Piet Verwilligen (Universita e INFN, Bari (IT)), Riccardo Farinelli (Universita e INFN, Ferrara (IT))

 colab
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  School-Garfield-Intr...

6:15 PM → 9:15 PM **Visits: Christmas Market**

 40/S2-C01 - Salle Curie

 Christmas Market
  ChristmasMarket.pdf


THURSDAY, NOVEMBER 30

9:00 AM → 12:30 PM **Lectures: Readout techniques**

 40/S2-C01 - Salle Curie

9:00 AM **Information** ⌚ 5m

Speaker: Florian Maximilian Brunbauer (CERN)

 IntroDay4.pdf

9:05 AM **Electronic readout techniques** ⌚ 55m

Speakers: Michael Lupberger (University of Bonn (DE)), Michael Lupberger (CEA Saclay), Michael Lupberger (University of Bonn)


 ElectronicReadout-L...
  RD51_MPGD_Schoo...

10:00 AM

RD51 Scalable Readout System - Demonstration ⌚ 1h

Speakers: Lucian Scharenberg (CERN, University of Bonn (DE)), Michael Lupberger (University of Bonn (DE)), Michael Lupberger (CEA Saclay), Michael Lupberger (University of Bonn)

 RD51_MPGD_Schoo...

 SRSDemonstration-...

11:00 AM

Coffee break ⌚ 30m

11:30 AM

Optical and hybrid readout techniques ⌚ 1h

Speaker: Davide Pinci (Sapienza Universita e INFN, Roma I (IT))

 OpticalHybridReado...

 OpticalReadout-Pin...

2:00 PM

→ 6:00 PM

Lab exercises
 GDD Lab 154/R-007

2:00 PM

Simulation ⌚ 4h

Speakers: Piet Verwilligen (Universita e INFN, Bari (IT)), Riccardo Farinelli (Universita e INFN, Ferrara (IT))

 Colab

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FRIDAY, DECEMBER 1

9:00 AM

→ 12:35 PM

Lectures: Applications
 40/S2-C01 - Salle Curie

9:00 AM

Information ⌚ 5m

Speaker: Florian Maximilian Brunbauer (CERN)

 IntroDay5.pdf

9:05 AM

MPGDs in High Energy Physics ⌚ 55m

Speaker: Paolo Iengo (CERN)

 20231201-MPGDin...
  ApplicationsHEP-le...

10:00 AM

Applications beyond HEP ⌚ 1h**Speaker:** Marco Cortesi (Michigan State University (US))

 ApplicationsBeyond...
 CERN_School_2023...
  CERN_School_2023...

11:00 AM

Break ⌚ 30m

11:30 AM

Applications beyond fundamental research ⌚ 1h**Speaker:** Jona Bortfeldt (Ludwig Maximilians Universitat (DE))

 ApplicationsBeyond...
 bortfeldt_231201.pdf

12:30 PM

Closing ⌚ 5m**Speaker:** Florian Maximilian Brunbauer (CERN)

 Closing.pdf
  ClosingSmall.pdf


2:00 PM

→ 6:00 PM

Lab exercises [GDD Lab 154/R-007](#)

2:00 PM

Simulations ⌚ 4h**Speakers:** Piet Verwilligen (Universita e INFN, Bari (IT)), Riccardo Farinelli (Universita e INFN, Ferrara (IT))

 colab
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