

**Implementing DRD7: an R&D  
Collaboration on Electronics  
and On-detector Processing.  
2nd workshop**

**Report of Contributions**

Contribution ID: 1

Type: **not specified**

# Introduction

*Monday 25 September 2023 14:00 (45 minutes)*

**Presenter:** VASEY, Francois (CERN)

Contribution ID: 2

Type: **not specified**

## 7.1.a Silicon Photonics Transceiver Development

*Monday 25 September 2023 14:45 (20 minutes)*

**Author:** TROSKA, Jan (CERN)

**Presenter:** TROSKA, Jan (CERN)

**Session Classification:** WG 7-1

Contribution ID: 3

Type: **not specified**

## 7.1.b Powering Next Generation Detector Systems

*Monday 25 September 2023 15:05 (20 minutes)*

**Presenter:** MICHELIS, Stefano (CERN)

**Session Classification:** WG 7-1

Contribution ID: 4

Type: **not specified**

## **7.1.c Wireless Allowing Data and Power Transmission**

*Monday 25 September 2023 15:25 (20 minutes)*

**Presenter:** DEHOS, cedric

**Session Classification:** WG 7-1

Contribution ID: 5

Type: **not specified**

## **Prospects on High data rate ASICs**

**Session Classification:** WG 7-1

Contribution ID: 6

Type: **not specified**

## **Discussion about R&D for Data Density**

**Session Classification:** WG 7-1

Contribution ID: 7

Type: **not specified**

## Coffee Break

*Monday 25 September 2023 15:45 (30 minutes)*

Contribution ID: **8**

Type: **not specified**

## Coffee Break

*Tuesday 26 September 2023 10:30 (30 minutes)*

Contribution ID: 9

Type: **not specified**

## 7.2.b Radiation Tolerant RISC-V Processor

*Monday 25 September 2023 16:30 (20 minutes)*

**Presenters:** KLOUKINAS, Kostas (CERN); MARIËN, Levi (KU Leuven)

**Session Classification:** WG 7-2

Contribution ID: **10**

Type: **not specified**

## **7.2.c Virtual Electronic System Prototyping**

*Monday 25 September 2023 16:50 (20 minutes)*

**Presenters:** CERESA, Davide (CERN); DHALIWAL, Jashandeep (CERN)

**Session Classification:** WG 7-2

Contribution ID: 11

Type: **not specified**

## **7.3.a High Performance TDC and ADC Blocks at Ultra-low Power**

*Monday 25 September 2023 17:10 (20 minutes)*

**Session Classification:** WG 7-3

Contribution ID: 12

Type: **not specified**

## **7.3.b Timing Measurements and Distribution**

*Monday 25 September 2023 17:30 (30 minutes)*

**Session Classification:** WG 7-3

Contribution ID: 13

Type: **not specified**

## **7.4.a Modeling and Development of Cryogenic CMOS PDKs**

*Tuesday 26 September 2023 08:30 (20 minutes)*

**Presenter:** ROLO, Manuel (Universita e INFN Torino (IT))

**Session Classification:** WG 7-4

Contribution ID: 14

Type: **not specified**

## **7.4.b Radiation Resistance of Advanced CMOS Nodes**

*Tuesday 26 September 2023 08:50 (20 minutes)*

**Session Classification:** WG 7-4

Contribution ID: 15

Type: **not specified**

## **7.4.c Cooling and Cooling Plates**

*Tuesday 26 September 2023 09:10 (20 minutes)*

**Session Classification:** WG 7-4

Contribution ID: 16

Type: **not specified**

## **On-detector cooling systems based on low-mass carbon dioxide evaporators**

**Session Classification:** WG 7-4

Contribution ID: 17

Type: **not specified**

## **7.5.a COTS Architectures, Tools and IP**

*Tuesday 26 September 2023 09:30 (20 minutes)*

**Session Classification:** WG 7-5

Contribution ID: 18

Type: **not specified**

## **7.6.a Common Access to Selected Imaging Technologies and IP Blocks: a) TPSCo and TJ**

*Tuesday 26 September 2023 11:00 (15 minutes)*

**Presenter:** SEDGWICK, Iain

**Session Classification:** WG 7-6

Contribution ID: 19

Type: **not specified**

## **7.6.b Common Access to 3D and Advanced Integration**

*Tuesday 26 September 2023 11:30 (15 minutes)*

**Presenter:** Dr CASELLE, Michele (KIT - Karlsruhe Institute of Technology (DE))

**Session Classification:** WG 7-6

Contribution ID: 20

Type: **not specified**

## **7.5.b No Backend, Full 100GbE Solutions from FE to DAQ**

*Tuesday 26 September 2023 09:50 (20 minutes)*

**Session Classification:** WG 7-5

Contribution ID: 21

Type: **not specified**

## 7.2.a eFPGA - Programmable Logic Array IP

*Monday 25 September 2023 16:15 (15 minutes)*

**Presenter:** KARAGOUNIS, Michael (Fachhochschule Dortmund Univ. of Applied Sciences and Arts (DE))

**Session Classification:** WG 7-2

Contribution ID: 22

Type: **not specified**

## 7.5.c Generic Backend Board

*Tuesday 26 September 2023 10:10 (20 minutes)*

**Session Classification:** WG 7-5

Contribution ID: 23

Type: **not specified**

## **7.6.a Common Access to Selected Imaging Technologies and IP Blocks: b) LFoundry**

*Tuesday 26 September 2023 11:15 (15 minutes)*

**Presenter:** ROLO, Manuel (Universita e INFN Torino (IT))

**Session Classification:** WG 7-6