

# **Advanced UK Instrumentation Training 2022**

## **Report of Contributions**

Contribution ID: 7

Type: **not specified**

## Monte Carlo Simulations - Allpix squared 2

*Tuesday, June 14, 2022 3:00 PM (1 hour)*

**Presenter:** HYNDS, Daniel (University of Oxford (GB))

**Session Classification:** Software tools

Contribution ID: 8

Type: **not specified**

## Monte Carlo Simulations - Allpix squared 1

*Friday, June 10, 2022 11:00 AM (1 hour)*

**Presenter:** HYNDS, Daniel (University of Oxford (GB))

**Session Classification:** Software tools

Contribution ID: 9

Type: **not specified**

## **Band theory 1**

*Tuesday, April 26, 2022 4:00 PM (1 hour)*

**Presenter:** WEATHERILL, Daniel

**Session Classification:** Semiconductor theory

Contribution ID: **10**

Type: **not specified**

## **Band theory 2**

*Friday, April 29, 2022 12:00 PM (1 hour)*

**Presenter:** WEATHERILL, Daniel

**Session Classification:** Semiconductor theory

Contribution ID: 11

Type: **not specified**

## Device layout, guard rings, device calculations 1

*Tuesday, May 3, 2022 4:00 PM (1 hour)*

**Presenter:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Semiconductor theory

Contribution ID: 12

Type: **not specified**

## Device layout, guard rings, device calculations 2

*Friday, May 6, 2022 12:00 PM (1 hour)*

**Presenter:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Semiconductor theory

Contribution ID: 13

Type: **not specified**

# Interaction of particles with matter 1

*Friday, May 13, 2022 10:00 AM (1 hour)*

**Presenter:** ALLPORT, Philip Patrick (University of Birmingham (UK))

**Session Classification:** Semiconductor theory



Contribution ID: 14

Type: **not specified**

## Interaction of particles with matter 2

*Friday, May 13, 2022 11:00 AM (1 hour)*

**Presenter:** ALLPORT, Philip Patrick (University of Birmingham (UK))

**Session Classification:** Semiconductor theory

Contribution ID: 15

Type: **not specified**

## **Ramo Shockley theory**

*Friday, May 13, 2022 12:00 PM (1 hour)*

**Presenter:** WINDISCHHOFER, Philipp (University of Oxford (GB))

**Session Classification:** Semiconductor theory

Contribution ID: 16

Type: **not specified**

## Radiation damage 1

*Tuesday, May 17, 2022 3:00 PM (1 hour)*

**Presenter:** GONELLA, Laura (University of Birmingham (UK))

**Session Classification:** Semiconductor theory

Contribution ID: 17

Type: **not specified**

## Radiation damage 2

*Tuesday, May 17, 2022 4:00 PM (1 hour)*

**Presenter:** GONELLA, Laura (University of Birmingham (UK))

**Session Classification:** Semiconductor theory

Contribution ID: **18**

Type: **not specified**

## **General electronics, simple circuit calculations**

*Tuesday, April 26, 2022 1:00 PM (1 hour)*

**Presenter:** BLUMENSCHN, Ulla (University of London (GB))

**Session Classification:** Electronics and DAQ

Contribution ID: **19**

Type: **not specified**

## **Circuit theory, common topologies**

*Friday, April 29, 2022 9:00 AM (1 hour)*

**Presenter:** BLUMENSCHN, Ulla (University of London (GB))

**Session Classification:** Electronics and DAQ

Contribution ID: 20

Type: **not specified**

## **Circuit design, noise and grounding**

*Tuesday, May 3, 2022 1:00 PM (1 hour)*

**Presenter:** ZHANG, Weida

**Session Classification:** Electronics and DAQ

Contribution ID: 21

Type: **not specified**

## Amplifier design, TDC

*Friday, May 6, 2022 9:00 AM (1 hour)*

**Presenter:** ZHANG, Weida

**Session Classification:** Electronics and DAQ



Contribution ID: 22

Type: **not specified**

## **[cancelled] Typical ASIC architectures**

*Tuesday, May 10, 2022 1:00 PM (1 hour)*

**Session Classification:** Electronics and DAQ

Contribution ID: 23

Type: **not specified**

## PCB layout

*Friday, May 13, 2022 9:00 AM (1 hour)*

**Presenter:** NAIK, Sneha Amogh (University of Glasgow (GB))

**Session Classification:** Electronics and DAQ

Contribution ID: 24

Type: **not specified**

# Trigger and DAQ 1

*Tuesday, May 17, 2022 1:00 PM (1 hour)*

**Presenter:** ROSE, Andrew

**Session Classification:** Electronics and DAQ

Contribution ID: 25

Type: **not specified**

## Trigger and DAQ 2

*Friday, May 20, 2022 9:00 AM (1 hour)*

**Presenter:** ROSE, Andrew

**Session Classification:** Electronics and DAQ

Contribution ID: 26

Type: **not specified**

## **Mechanical structures 1**

*Tuesday, April 26, 2022 3:00 PM (1 hour)*

**Presenter:** VIEHHAUSER, Georg (University of Oxford (GB))

**Session Classification:** Mechanics and cooling

Contribution ID: 27

Type: **not specified**

## **Mechanical structures 2**

*Friday, April 29, 2022 10:00 AM (1 hour)*

**Presenter:** VIEHHAUSER, Georg (University of Oxford (GB))

**Session Classification:** Mechanics and cooling

Contribution ID: 28

Type: **not specified**

# Thermal management 1

*Tuesday, May 3, 2022 3:00 PM (1 hour)*

**Presenter:** VIEHHAUSER, Georg (University of Oxford (GB))

**Session Classification:** Mechanics and cooling

Contribution ID: 29

Type: **not specified**

## Thermal management 2

*Friday, May 6, 2022 10:00 AM (1 hour)*

**Presenter:** VIEHHAUSER, Georg (University of Oxford (GB))

**Session Classification:** Mechanics and cooling



Contribution ID: **30**

Type: **not specified**

## **CAD and technical drawing**

*Friday, June 10, 2022 10:00 AM (1 hour)*

**Presenter:** BOOTH, Michael Jack (University of Oxford (GB))

**Session Classification:** Mechanics and cooling

Contribution ID: **31**

Type: **not specified**

## **FE analysis tools**

*Tuesday, June 14, 2022 2:00 PM (1 hour)*

**Presenter:** BOOTH, Michael Jack (University of Oxford (GB))

**Session Classification:** Mechanics and cooling

Contribution ID: **32**

Type: **not specified**

## **CAD walkthrough**

*Friday, June 17, 2022 10:00 AM (1 hour)*

**Presenter:** BOOTH, Michael Jack (University of Oxford (GB))

**Session Classification:** Mechanics and cooling

Contribution ID: 33

Type: **not specified**

## Device fabrication 1

*Tuesday, April 26, 2022 2:00 PM (1 hour)*

**Presenters:** BLUE, Andrew (University of Glasgow (GB)); VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 34

Type: **not specified**

## Device fabrication 2

*Friday, April 29, 2022 11:00 AM (1 hour)*

**Presenters:** BLUE, Andrew (University of Glasgow (GB)); VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 35

Type: **not specified**

## Device fabrication 3

*Tuesday, May 3, 2022 2:00 PM (1 hour)*

**Presenters:** BLUE, Andrew (University of Glasgow (GB)); VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 36

Type: **not specified**

## Device fabrication 4

*Friday, May 6, 2022 11:00 AM (1 hour)*

**Presenters:** BLUE, Andrew (University of Glasgow (GB)); VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 37

Type: **not specified**

## **Device structures: planar and 3D**

*Tuesday, May 10, 2022 2:00 PM (1 hour)*

**Presenter:** MUNOZ SANCHEZ, Francisca (University of Manchester (GB))

**Session Classification:** Silicon fabrication and structures



Contribution ID: **38**

Type: **not specified**

## **Device structures: Gain Layers (LGAD, SPAD, SiPM)**

*Tuesday, May 10, 2022 3:00 PM (1 hour)*

**Presenter:** MUNOZ SANCHEZ, Francisca (University of Manchester (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 39

Type: **not specified**

## Device structures: monolithic

*Tuesday, May 17, 2022 2:00 PM (1 hour)*

**Presenter:** VILELLA FIGUERAS, Eva (University of Liverpool (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 40

Type: **not specified**

## **Transistor layout: 250 - 28 nm, FinFETs**

*Friday, May 20, 2022 10:00 AM (1 hour)*

**Presenter:** VILELLA FIGUERAS, Eva (University of Liverpool (GB))

**Session Classification:** Silicon fabrication and structures

Contribution ID: 41

Type: **not specified**

## **Diamond detectors 1**

*Friday, May 20, 2022 11:00 AM (1 hour)*

**Presenter:** OH, Alexander (University of Manchester (GB))

**Session Classification:** Short topics

Contribution ID: 42

Type: **not specified**

## **Diamond detectors 2**

*Friday, May 20, 2022 12:00 PM (1 hour)*

**Presenter:** OH, Alexander (University of Manchester (GB))

**Session Classification:** Short topics

Contribution ID: 43

Type: **not specified**

## Photon science applications

*Tuesday, May 24, 2022 2:00 PM (1 hour)*

**Presenter:** HOBSON, Peter (Queen mary University London)

**Session Classification:** Short topics

Contribution ID: 44

Type: **not specified**

## **Other silicon devices: CCDs, Depfets, imaging sensors**

*Tuesday, May 31, 2022 2:00 PM (1 hour)*

**Presenter:** WEATHERILL, Daniel

**Session Classification:** Short topics

Contribution ID: 45

Type: **not specified**

## **Dosimetry and medical applications**

*Friday, June 17, 2022 11:00 AM (1 hour)*

**Presenter:** TAYLOR, Jon (University of Liverpool (GB))

**Session Classification:** Short topics



Contribution ID: 46

Type: **not specified**

## **Lab techniques: IV, CV, source and x-ray measurements 1**

*Tuesday, May 24, 2022 1:00 PM (1 hour)*

**Presenter:** HOMMELS, Bart (University of Cambridge (GB))

**Session Classification:** Experimental techniques

Contribution ID: 47

Type: **not specified**

## **Lab techniques: IV, CV, source and x-ray measurements 2**

*Friday, May 27, 2022 10:00 AM (1 hour)*

**Presenter:** HOMMELS, Bart (University of Cambridge (GB))

**Session Classification:** Experimental techniques

Contribution ID: 48

Type: **not specified**

## Transient current techniques

*Friday, June 10, 2022 9:00 AM (1 hour)*

**Presenter:** HYNDS, Daniel (University of Oxford (GB))

**Session Classification:** Experimental techniques

Contribution ID: 49

Type: **not specified**

## **Solid state techniques: DLTS, TSC**

*Tuesday, June 14, 2022 1:00 PM (1 hour)*

**Presenter:** HYNDS, Daniel (University of Oxford (GB))

**Session Classification:** Experimental techniques

Contribution ID: 50

Type: **not specified**

## Testbeams 1

*Tuesday, May 31, 2022 1:00 PM (1 hour)*

**Presenters:** VELTHUIS, Jaap; VELTHUIS, Johannes (University of Bristol (GB))

**Session Classification:** Experimental techniques

Contribution ID: 51

Type: **not specified**

## Testbeams 2

*Tuesday, June 7, 2022 1:00 PM (1 hour)*

**Presenters:** VELTHUIS, Jaap; VELTHUIS, Johannes (University of Bristol (GB))

**Session Classification:** Experimental techniques

Contribution ID: 52

Type: **not specified**

## Irradiation 1

*Friday, June 17, 2022 9:00 AM (1 hour)*

**Presenter:** TAYLOR, Jon (University of Liverpool (GB))

**Session Classification:** Experimental techniques

Contribution ID: 53

Type: **not specified**

## Irradiation 2

*Tuesday, June 21, 2022 1:00 PM (1 hour)*

**Presenter:** TAYLOR, Jon (University of Liverpool (GB))

**Session Classification:** Experimental techniques



Contribution ID: 54

Type: **not specified**

## TCAD 1

*Tuesday, May 24, 2022 4:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: 55

Type: **not specified**

## TCAD 2

*Friday, May 27, 2022 12:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: 56

Type: **not specified**

## TCAD 3

*Tuesday, May 31, 2022 4:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: 57

Type: **not specified**

## TCAD 4

*Tuesday, June 7, 2022 4:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: 58

Type: **not specified**

## TCAD 5

*Friday, June 10, 2022 12:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: 59

Type: **not specified**

## TCAD 6

*Tuesday, June 14, 2022 4:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: **60**

Type: **not specified**

## **TCAD 7**

*Friday, June 17, 2022 12:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations

Contribution ID: **61**

Type: **not specified**

## **TCAD 8**

*Tuesday, June 21, 2022 4:00 PM (1 hour)*

**Presenters:** VILLANI, Enrico Giulio (Science and Technology Facilities Council STFC (GB)); OWEN, Nick (RAL)

**Session Classification:** TCAD electric field and transport simulations



Contribution ID: **62**

Type: **not specified**

## **PCB design - KiCAD 1**

*Tuesday, May 24, 2022 3:00 PM (1 hour)*

**Presenter:** WEATHERILL, Daniel

**Session Classification:** Software tools

Contribution ID: 63

Type: **not specified**

## **PCB design - KiCAD 2**

*Friday, May 27, 2022 11:00 AM (1 hour)*

**Presenter:** WEATHERILL, Daniel

**Session Classification:** Software tools

Contribution ID: **64**

Type: **not specified**

## **SPICE simulations - LTSpice 1**

*Tuesday, May 31, 2022 3:00 PM (1 hour)*

**Presenter:** ZHANG, Weida

**Session Classification:** Software tools

Contribution ID: 65

Type: **not specified**

## **SPICE simulations - LTSpice 2**

*Tuesday, June 7, 2022 3:00 PM (1 hour)*

**Presenter:** ZHANG, Weida

**Session Classification:** Software tools

Contribution ID: **66**

Type: **not specified**

## **Testbeam reconstruction - Corryvreckan 1**

*Tuesday, June 21, 2022 2:05 PM (1 hour)*

**Presenter:** WRAIGHT, Kenneth Gibb (University of Glasgow (GB))

**Session Classification:** Software tools

Contribution ID: 67

Type: **not specified**

## Testbeam reconstruction - Corryvreckan 2

*Tuesday, June 21, 2022 3:05 PM (1 hour)*

**Presenter:** WRAIGHT, Kenneth Gibb (University of Glasgow (GB))

**Session Classification:** Software tools

Contribution ID: **68**

Type: **not specified**

## **FPGA Overview**

*Friday, May 27, 2022 9:00 AM (1 hour)*

**Presenter:** ROSE, Andrew

**Session Classification:** Electronics and DAQ