

# 27th Geant4 Collaboration Meeting



## Report of Contributions

Contribution ID: 1

Type: **not specified**

## **Recent developments and validation of Geant4 PIXE**

*Tuesday 27 September 2022 09:00 (20 minutes)*

**Presenter:** GUATELLI, Susanna

**Session Classification:** Parallel 2A

Contribution ID: 2

Type: **not specified**

## **New Geant4 model of channeling in crystals and its potential applications**

*Tuesday 27 September 2022 09:20 (20 minutes)*

**Presenter:** SYTOV, Alexei (Universita e INFN, Ferrara (IT))

**Session Classification:** Parallel 2A

Contribution ID: 3

Type: **not specified**

## **Development of Geant4-DNA for atmosphere simulations**

*Tuesday 27 September 2022 10:00 (20 minutes)*

**Author:** NICOLANTI, francesca

**Co-author:** MANCINI TERRACCIANO, Carlo

**Presenters:** MANCINI TERRACCIANO, Carlo; NICOLANTI, francesca

**Session Classification:** Parallel 2A

Contribution ID: 4

Type: **not specified**

## **A novel extended example for the generation and tracking of inverse Compton scattering photons**

*Thursday 29 September 2022 14:00 (20 minutes)*

**Presenters:** PATERNO, Gianfranco; PATERNÒ, Gianfranco

**Session Classification:** Parallel 5A

Contribution ID: 5

Type: **not specified**

## **2022 update of the microelec module**

*Thursday 29 September 2022 14:20 (20 minutes)*

**Presenter:** INGUIMBERT, Christophe (ONERA)

**Session Classification:** Parallel 5A

Contribution ID: 6

Type: **not specified**

## **Combining Transportation and Multiple Scattering**

**Presenter:** HAHNFELD, Jonas (CERN)

**Session Classification:** Parallel 5A

Contribution ID: 7

Type: **not specified**

## Update on Geometry developments

*Wednesday 28 September 2022 10:50 (20 minutes)*

**Presenter:** APOSTOLAKIS, John (CERN)

**Session Classification:** Plenary 6 - Kernel, GUI/Vis, analysis, examples updates I



Contribution ID: 8

Type: **not specified**

## Developments on Fast Simulation

*Wednesday 28 September 2022 11:10 (20 minutes)*

**Presenter:** SALAMANI, Dalila (CERN)

**Session Classification:** Plenary 6 - Kernel, GUI/Vis, analysis, examples updates I

Contribution ID: 9

Type: **not specified**

## Command-based scorers

**Presenter:** ASAI, Makoto (JLab)

**Session Classification:** Plenary 6 - Kernel, GUI/Vis, analysis, examples updates I

Contribution ID: **10**

Type: **not specified**

## **Update on sub-event level parallelism**

*Wednesday 28 September 2022 11:30 (20 minutes)*

**Session Classification:** Plenary 6 - Kernel, GUI/Vis, analysis, examples updates I

Contribution ID: **11**

Type: **not specified**

## Discussion

**Session Classification:** Plenary 6 - Kernel, GUI/Vis, analysis, examples updates I

Contribution ID: 12

Type: **not specified**

## **Git/CMake/C++ Updates**

*Monday 26 September 2022 11:00 (20 minutes)*

**Presenter:** MORGAN, Benjamin (University of Warwick (GB))

**Session Classification:** Plenary 2 - Collaboration tools

Contribution ID: 13

Type: **not specified**

## Performance Monitoring Tools

*Monday 26 September 2022 11:20 (15 minutes)*

**Presenter:** Dr AMADIO, Guilherme (CERN)

**Session Classification:** Plenary 2 - Collaboration tools

Contribution ID: 14

Type: **not specified**

## Migration of Geant4 Website

*Monday 26 September 2022 11:45 (20 minutes)*

**Presenters:** HOWARD, Alexander (Imperial College (GB)); ZABOROWSKA, Anna (CERN); KONSTANTINOV, Dmitri (Institute for High Energy Physics of NRC Kurchatov Institute (RU))

**Session Classification:** Plenary 2 - Collaboration tools

Contribution ID: 15

Type: **not specified**

## Discussion

*Monday 26 September 2022 12:05 (25 minutes)*

**Session Classification:** Plenary 2 - Collaboration tools



Contribution ID: 16

Type: **not specified**

## Navigation Engines for GPUs

*Thursday 29 September 2022 09:00 (35 minutes)*

Surface model navigation 'engines' for GPU

The idea of the session is to give others a first overview of the two approaches (5-10 min each), then concentrate on challenges, potential reuse / commonalities / ...

Presentations:

- Key objects, overview of challenges for intersection, location and safety methods

Discussion

- Strengths and challenges
- Estimated memory requirements

**Presenters:** GHEATA, Andrei (CERN); JOHNSON, Seth (Oak Ridge National Laboratory (US))

**Session Classification:** Parallel 4A

Contribution ID: 17

Type: **not specified**

## Symplectic integration - GSoC project update

*Thursday 29 September 2022 09:35 (15 minutes)*

Overview of symplectic integration  
The Boris method and its implementation in Geant4  
High order extension  
Status and prospects

**Presenter:** TIWARI, divyansh

**Session Classification:** Parallel 4A

Contribution ID: **18**

Type: **not specified**

## **Integration of QSS in Geant4 - an update**

*Thursday 29 September 2022 09:50 (15 minutes)*

QSS  
Integration status  
Plans  
Discussion

**Presenters:** SANTI, Lucio (Universidad de Buenos Aires); CASTRO, Rodrigo (ETH Zurich); CASTRO, Rodrigo Daniel (Universidad de Buenos Aires (AR))

**Session Classification:** Parallel 4A

Contribution ID: 19

Type: **not specified**

## **BVH Navigation - integration in Geant4**

*Thursday 29 September 2022 10:05 (10 minutes)*

[Quick overview](#)

[Status of integration](#)

**Presenter:** Dr AMADIO, Guilherme (CERN)

**Session Classification:** Parallel 4A

Contribution ID: 20

Type: **not specified**

## **Command-based scoring vs general biasing and GFlash**

*Tuesday 27 September 2022 09:00 (30 minutes)*

**Presenter:** ASAI, Makoto (JLab)

**Session Classification:** Parallel 2B

Contribution ID: 21

Type: **not specified**

## **Status of GFlash example for sampling calorimeter**

*Tuesday 27 September 2022 09:30 (30 minutes)*

**Presenter:** SEMENIOUK, Igor (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Parallel 2B

Contribution ID: 22

Type: **not specified**

## Review of open tickets

*Thursday 29 September 2022 10:25 (5 minutes)*

**Session Classification:** Parallel 4A

Contribution ID: 23

Type: **not specified**

## **Update on the basic and extended examples**

*Tuesday 27 September 2022 14:30 (15 minutes)*

**Presenter:** HRIVNACOVA, Ivana

**Session Classification:** Parallel 3A



Contribution ID: 24

Type: **not specified**

## hadronic/ParticleFluence

*Tuesday 27 September 2022 14:00 (7 minutes)*

**Presenter:** RIBON, Alberto

**Session Classification:** Parallel 3A

Contribution ID: 25

Type: **not specified**

## **dna/moleculardna - Hoang Tran**

*Tuesday 27 September 2022 14:07 (7 minutes)*

**Presenter:** TRAN, Hoang

**Session Classification:** Parallel 3A

Contribution ID: 26

Type: **not specified**

## Parameterisations/Par04

*Tuesday 27 September 2022 14:14 (7 minutes)*

**Presenter:** ZABOROWSKA, Anna (CERN)

**Session Classification:** Parallel 3A

Contribution ID: 27

Type: **not specified**

## Update on the advanced examples

*Tuesday 27 September 2022 14:45 (10 minutes)*

**Author:** GUATELLI, Susanna

**Presenter:** GUATELLI, Susanna

**Session Classification:** Parallel 3A

Contribution ID: 28

Type: **not specified**

## **Fast drawing in the “ICRP HumanPhantoms”**

*Tuesday 27 September 2022 14:55 (10 minutes)*

**Presenter:** ALLISON, John

**Session Classification:** Parallel 3A

Contribution ID: 29

Type: **not specified**

## **An advanced example for 3D imaging of microscopic samples by proton tomography**

*Tuesday 27 September 2022 15:05 (15 minutes)*

**Author:** LI, Zhuxin

**Co-authors:** MICHELET, Claire; INCERTI, Sebastien (CNRS/IN2P3)

**Presenters:** MICHELET, Claire; INCERTI, Sebastien (CNRS/IN2P3); LI, Zhuxin

**Session Classification:** Parallel 3A

Contribution ID: **30**

Type: **not specified**

## **runAndEvent/RE07**

*Tuesday 27 September 2022 14:21 (7 minutes)*

**Presenter:** HAHNFELD, Jonas (CERN)

**Session Classification:** Parallel 3A

Contribution ID: **31**

Type: **not specified**

## Opening remarks

*Monday 26 September 2022 09:05 (10 minutes)*

**Presenter:** VERDERI, Marc (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Plenary 1 - Opening addresses / open requirements



Contribution ID: 32

Type: **not specified**

## **Open and new requirements - LHC and other HEP Energy Frontier experiments**

*Monday 26 September 2022 09:15 (15 minutes)*

**Presenter:** BANDIERAMONTE, Marilena (University of Pittsburgh (US))

**Session Classification:** Plenary 1 - Opening addresses / open requirements

Contribution ID: 33

Type: **not specified**

## **Open and new requirements - Medical and bio science**

*Monday 26 September 2022 09:30 (15 minutes)*

**Presenter:** GUATELLI, Susanna

**Session Classification:** Plenary 1 - Opening addresses / open requirements

Contribution ID: 34

Type: **not specified**

## **Open and new requirements - Nuclear Physics experiments**

*Monday 26 September 2022 09:45 (15 minutes)*

**Presenter:** SARMIENTO PICO, Luis Gerardo (Lund University (SE))

**Session Classification:** Plenary 1 - Opening addresses / open requirements

Contribution ID: 35

Type: **not specified**

## **Open and new requirements - Space science and engineering**

*Monday 26 September 2022 10:00 (15 minutes)*

**Presenter:** SANTIN, Giovanni (ESA)

**Session Classification:** Plenary 1 - Opening addresses / open requirements

Contribution ID: 36

Type: **not specified**

## **Open and new requirements - HEP intensity and cosmic frontier experiment**

*Monday 26 September 2022 10:15 (15 minutes)*

**Presenter:** GENSER, Krzysztof (Fermi National Accelerator Laboratory (US))

**Session Classification:** Plenary 1 - Opening addresses / open requirements

Contribution ID: 37

Type: **not specified**

## Update on Geant4 hadronic physics

*Wednesday 28 September 2022 09:00 (30 minutes)*

**Presenter:** RIBON, Alberto (CERN)

**Session Classification:** Plenary 5 - Physics update II

Contribution ID: **38**

Type: **not specified**

## **Physics validation of Geant4 via calorimeter test-beam set-ups, and their inclusion in geant-val**

*Wednesday 28 September 2022 09:30 (30 minutes)*

**Presenter:** PEZZOTTI, Lorenzo (CERN)

**Session Classification:** Plenary 5 - Physics update II

Contribution ID: 39

Type: **not specified**

## **Fluka-Cern status and plans, Moira, and scoring**

*Wednesday 28 September 2022 10:00 (30 minutes)*

**Presenter:** HUGO, Gabrielle (CERN)

**Session Classification:** Plenary 5 - Physics update II



Contribution ID: 40

Type: **not specified**

## **Status and prospectives for the Geant4 string models, FTF and QGS**

*Monday 26 September 2022 14:00 (40 minutes)*

**Presenter:** UZHINSKII, Vladimir (Joint Institute for Nuclear Research (RU))

**Session Classification:** Parallel 1B

Contribution ID: 41

Type: **not specified**

## Update on tuning FTF model parameters

*Monday 26 September 2022 14:40 (20 minutes)*

**Presenter:** YARBA, Julia

**Session Classification:** Parallel 1B

Contribution ID: 42

Type: **not specified**

## Calling Pythia8 generator to handle an interaction during a Geant4 simulation

**Co-author:** SARMIENTO PICO, Luis Gerardo (Lund University (SE))

**Presenters:** ELEN, Einar Alfred; SARMIENTO PICO, Luis Gerardo (Lund University (SE))

**Session Classification:** Parallel 1B

Contribution ID: 43

Type: **not specified**

## **Fluka-Cern hadronic event generator interface**

**Presenter:** HUGO, Gabrielle (CERN)

**Session Classification:** Parallel 1B

Contribution ID: 44

Type: **not specified**

## **Update on the extension of the INCL model for antiprotons**

**Presenter:** ZHARENOV, Demid

**Session Classification:** Parallel 3B

Contribution ID: 45

Type: **not specified**

## **Recent developments in hadronics: integral approach, neutron general process, etc.**

*Tuesday 27 September 2022 14:40 (40 minutes)*

**Presenter:** Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Parallel 3B

Contribution ID: 46

Type: **not specified**

## Calling Pythia8 generator to handle an interaction during a Geant4 simulation

*Friday 30 September 2022 09:00 (30 minutes)*

**Co-author:** ELEN, Einar Alfred

**Presenters:** ELEN, Einar Alfred; SARMIENTO PICO, Luis Gerardo (Lund University (SE))

**Session Classification:** Parallel 6B

Contribution ID: 47

Type: **not specified**

## **Fluka-Cern hadronic event generator interface**

*Friday 30 September 2022 10:00 (30 minutes)*

**Presenter:** HUGO, Gabrielle (CERN)

**Session Classification:** Parallel 6B



Contribution ID: 48

Type: **not specified**

## **Update on the extension of the INCL model for antiprotons**

*Friday 30 September 2022 09:30 (30 minutes)*

**Presenter:** ZHARENOV, Demid

**Session Classification:** Parallel 6B

Contribution ID: 49

Type: **not specified**

## **Alpha particles produced by protons in B-11 (Geant4)**

*Tuesday 27 September 2022 14:20 (20 minutes)*

**Presenter:** GRICHINE, Vladimir (Russian Academy of Sciences (RU))

**Session Classification:** Parallel 3B

Contribution ID: 50

Type: **not specified**

## **Replacing ParticleHP cross sections with user's ones**

*Thursday 29 September 2022 09:00 (30 minutes)*

**Presenter:** ARCE, Pedro (CIEMAT - Centro de Investigaciones Energéticas Medioambientales y Tec. (ES))

**Session Classification:** Parallel 4B

Contribution ID: 51

Type: **not specified**

## **Recent developments in thermal neutrons**

*Thursday 29 September 2022 09:30 (30 minutes)*

**Presenter:** THULLIEZ, Loic Jerome

**Session Classification:** Parallel 4B

Contribution ID: 52

Type: **not specified**

## Variance reduction using Adaptive Multilevel Splitting (AMS)

*Thursday 29 September 2022 10:00 (30 minutes)*

**Presenter:** DUMONTEIL, Eric (DAPNIA)

**Session Classification:** Parallel 4B

Contribution ID: 53

Type: **not specified**

## Welcome

*Monday 26 September 2022 09:00 (5 minutes)*

**Presenter:** GARNIER, Laurent

**Session Classification:** Plenary 1 - Opening addresses / open requirements

Contribution ID: 54

Type: **not specified**

## Discussion

*Tuesday 27 September 2022 15:20 (10 minutes)*

**Session Classification:** Parallel 3B

Contribution ID: 55

Type: **not specified**

## Discussion

**Session Classification:** Parallel 6B



Contribution ID: 56

Type: **not specified**

## Introduction to discussion

*Thursday 29 September 2022 16:00 (15 minutes)*

**Presenter:** VERDERI, Marc (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Plenary 8 - Internal Seminars & Generation Transfer Knowledge

Contribution ID: 57

Type: **not specified**

## Discussion

*Thursday 29 September 2022 16:15 (45 minutes)*

**Presenters:** PEZZOTTI, Lorenzo (CERN); VERDERI, Marc (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Plenary 8 - Internal Seminars & Generation Transfer Knowledge

Contribution ID: 58

Type: **not specified**

# **An Introduction to GPUs and their Applicability to MC**

*Thursday 29 September 2022 17:00 (30 minutes)*

**Presenter:** HAHNFELD, Jonas (CERN)

**Session Classification:** Plenary 8 - Internal Seminars & Generation Transfer Knowledge

Contribution ID: 59

Type: **not specified**

## **Development of a physics list for radiation protection studies in space**

*Tuesday 27 September 2022 09:40 (20 minutes)*

**Author:** ARCHER, Jay (University of Wollongong)

**Co-author:** GUATELLI, Susanna

**Presenter:** ARCHER, Jay (University of Wollongong)

**Session Classification:** Parallel 2A

Contribution ID: **60**

Type: **not specified**

## Update on geant-val

*Monday 26 September 2022 11:35 (10 minutes)*

**Presenter:** KONSTANTINOV, Dmitri (Institute for High Energy Physics of NRC Kurchatov Institute (RU))

**Session Classification:** Plenary 2 - Collaboration tools

Contribution ID: **61**

Type: **not specified**

## **Summary of Parallel 1A - R&D Task Force activities**

*Friday 30 September 2022 11:00 (18 minutes)*

**Presenter:** POKORSKI, Witold (CERN)

**Session Classification:** Plenary 9 - Summary of parallel sessions

Contribution ID: 62

Type: **not specified**

## **Summary of Parallel 2A/5A - New developments for EM physics**

*Friday 30 September 2022 11:18 (18 minutes)*

**Presenters:** PANDOLA, Luciano (INFN-LNS); GUATELLI, Susanna

**Session Classification:** Plenary 9 - Summary of parallel sessions

Contribution ID: **63**

Type: **not specified**

## **Summary of Parallel 2B: Biasing and Fast Simulation update**

*Friday 30 September 2022 11:36 (18 minutes)*

**Presenter:** VERDERI, Marc (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Plenary 9 - Summary of parallel sessions



Contribution ID: 64

Type: **not specified**

## **Summary of Parallel 3A - Basic, Extended and Advanced Examples**

*Friday 30 September 2022 11:54 (18 minutes)*

**Presenters:** HRIVNACOVA, Ivana (Université Paris-Saclay (FR)); GUATELLI, Susanna

**Session Classification:** Plenary 9 - Summary of parallel sessions

Contribution ID: 65

Type: **not specified**

## **Summary of Parallel 5B: Computing performance profiling and monitoring**

*Friday 30 September 2022 14:00 (20 minutes)*

**Presenter:** JUN, Soon Yung (Fermi National Accelerator Lab. (US))

**Session Classification:** Plenary 10 - Summary of parallel sessions / closing session

Contribution ID: 66

Type: **not specified**

## **Summary of Parallel sessions: Status of hadronic models and validation**

*Friday 30 September 2022 14:20 (20 minutes)*

**Presenter:** RIBON, Alberto (CERN)

**Session Classification:** Plenary 10 - Summary of parallel sessions / closing session

Contribution ID: 67

Type: **not specified**

## Summary of Parallel 6A: Visualization update

*Friday 30 September 2022 14:40 (20 minutes)*

**Presenter:** GARNIER, Laurent

**Session Classification:** Plenary 10 - Summary of parallel sessions / closing session

Contribution ID: **68**

Type: **not specified**

## **Release schedule**

*Friday 30 September 2022 15:00 (10 minutes)*

**Presenter:** Dr COSMO, Gabriele (CERN)

**Session Classification:** Plenary 10 - Summary of parallel sessions / closing session

Contribution ID: **69**

Type: **not specified**

## Closing remarks

*Friday 30 September 2022 15:10 (15 minutes)*

**Presenter:** VERDERI, Marc (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Plenary 10 - Summary of parallel sessions / closing session

Contribution ID: 70

Type: **not specified**

## **Summary of Parallel 4A: Geometry & alternative transport**

*Friday 30 September 2022 12:12 (18 minutes)*

**Presenter:** APOSTOLAKIS, John (CERN)

**Session Classification:** Plenary 9 - Summary of parallel sessions

Contribution ID: 71

Type: **not specified**

## Status of EM physics

*Tuesday 27 September 2022 11:00 (30 minutes)*

**Presenter:** Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Plenary 4 - Physics update I



Contribution ID: 72

Type: **not specified**

## **Status of the G4-Med tests for bio-medical applications**

*Tuesday 27 September 2022 11:30 (30 minutes)*

**Presenter:** GUATELLI, Susanna

**Session Classification:** Plenary 4 - Physics update I

Contribution ID: 73

Type: **not specified**

## **Ideas for accelerating EM physics simulation in HEP**

*Tuesday 27 September 2022 12:00 (30 minutes)*

**Presenter:** HAHNFELD, Jonas (CERN)

**Session Classification:** Plenary 4 - Physics update I

Contribution ID: 74

Type: **not specified**

## **AdePT status report and discussion**

*Monday 26 September 2022 14:00 (30 minutes)*

**Presenter:** POKORSKI, Witold (CERN)

**Session Classification:** Parallel 1A

Contribution ID: 75

Type: **not specified**

## **Celeritas status report and discussion**

*Monday 26 September 2022 14:30 (30 minutes)*

**Presenter:** JOHNSON, Seth (Oak Ridge National Laboratory (US))

**Session Classification:** Parallel 1A

Contribution ID: 76

Type: **not specified**

## **Opticks status update and discussion**

*Monday 26 September 2022 15:00 (30 minutes)*

**Presenter:** WENZEL, Hans-Joachim

**Session Classification:** Parallel 1A

Contribution ID: 77

Type: **not specified**

## **Announcement of 28th Geant4 Collaboration Week**

*Friday 30 September 2022 15:25 (5 minutes)*

**Presenter:** Dr MURAKAMI, Koichi

**Session Classification:** Plenary 10 - Summary of parallel sessions / closing session

Contribution ID: 78

Type: **not specified**

## Introduction

*Tuesday 27 September 2022 16:00 (5 minutes)*

**Presenter:** VERDERI, Marc (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Geant4 Technical Forum

Contribution ID: 79

Type: **not specified**

## **Status of 11.1 developments: non-physics part**

*Tuesday 27 September 2022 16:05 (20 minutes)*

**Presenter:** Dr COSMO, Gabriele (CERN)

**Session Classification:** Geant4 Technical Forum



Contribution ID: **80**

Type: **not specified**

## **Status of 11.1 developments: Electromagnetic physics part**

*Tuesday 27 September 2022 16:25 (20 minutes)*

**Presenter:** Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Geant4 Technical Forum

Contribution ID: **81**

Type: **not specified**

## **Using photogrammetry for automatic digital models generation**

*Tuesday 27 September 2022 18:00 (35 minutes)*

**Presenters:** DOTTI, Andrea; DOTTI, Andrea (SLAC National Accelerator Laboratory (US))

**Session Classification:** Geant4 Technical Forum

Contribution ID: **82**

Type: **not specified**

## **Radioactive decay simulation of superheavy nuclei in Geant4**

*Tuesday 27 September 2022 17:10 (25 minutes)*

**Presenter:** CHAKMA, Rikel

**Session Classification:** Geant4 Technical Forum

Contribution ID: **83**

Type: **not specified**

## **Update of the optical light transport in Geant4 to model optical coating**

*Tuesday 27 September 2022 16:45 (25 minutes)*

**Presenter:** CAPPELLUGOLA, Laurie

**Session Classification:** Geant4 Technical Forum

Contribution ID: **84**

Type: **not specified**

## Updates on analysis

*Thursday 29 September 2022 11:00 (15 minutes)*

**Presenter:** HRIVNACOVA, Ivana (Université Paris-Saclay (FR))

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II

Contribution ID: 85

Type: **not specified**

## **New features and developments in visualization and GUI**

*Thursday 29 September 2022 11:15 (20 minutes)*

**Presenter:** GARNIER, Laurent

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II

Contribution ID: **86**

Type: **not specified**

## **New features and developments in GUI**

**Presenter:** GARNIER, Laurent

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II

Contribution ID: 87

Type: **not specified**

## **Status/Updates of Geant4Py**

*Thursday 29 September 2022 11:35 (15 minutes)*

**Presenter:** Dr MURAKAMI, Koichi

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II



Contribution ID: **88**

Type: **not specified**

## **Future of Geant4-Python bindings**

*Thursday 29 September 2022 11:50 (15 minutes)*

**Presenter:** MORGAN, Benjamin (University of Warwick (GB))

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II

Contribution ID: **89**

Type: **not specified**

## **Updates on Basic and extended examples**

*Thursday 29 September 2022 12:05 (10 minutes)*

**Presenter:** HRIVNACOVA, Ivana (Université Paris-Saclay (FR))

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II

Contribution ID: **90**

Type: **not specified**

## **Updates on Advanced examples**

*Thursday 29 September 2022 12:15 (15 minutes)*

**Presenter:** GUATELLI, Susanna

**Session Classification:** Plenary 7 - Kernel, GUI/Vis, analysis, examples updates II

Contribution ID: **91**

Type: **not specified**

## **Computing Performance Task - summary, status and future updates**

*Thursday 29 September 2022 14:40 (20 minutes)*

**Presenter:** YARBA, Julia

**Session Classification:** Parallel 5B

Contribution ID: 92

Type: **not specified**

## **GSoC 2022 Project: Performance Analysis and Data Visualization for Geant4**

*Thursday 29 September 2022 15:00 (20 minutes)*

**Co-author:** Dr AMADIO, Guilherme (CERN)

**Presenter:** Mr JANI, Harshil

**Session Classification:** Parallel 5B

Contribution ID: 93

Type: **not specified**

## Discussion

*Tuesday 27 September 2022 10:00 (30 minutes)*

**Session Classification:** Parallel 2B

Contribution ID: 94

Type: **not specified**

## Computing Performance Results and Issues: ATLAS

*Thursday 29 September 2022 14:20 (20 minutes)*

**Presenter:** BANDIERAMONTE, Marilena (University of Pittsburgh (US))

**Session Classification:** Parallel 5B

Contribution ID: 95

Type: **not specified**

## Computing Performance Results and Issues: CMS

*Thursday 29 September 2022 14:00 (20 minutes)*

**Presenter:** Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Parallel 5B



Contribution ID: 96

Type: **not specified**

## Update on the advanced example Radioprotection

*Tuesday 27 September 2022 15:20 (10 minutes)*

**Author:** MAGINI, Jacopo

**Co-author:** ROMANO, Francesco

**Presenters:** ROMANO, Francesco; MAGINI, Jacopo

**Session Classification:** Parallel 3A

Contribution ID: 97

Type: **not specified**

## Computation of cubic volume and surface area

*Thursday 29 September 2022 10:15 (10 minutes)*

**Presenter:** TCHERNIAEV, Evgueni (University of Pittsburgh (US))

**Session Classification:** Parallel 4A

Contribution ID: **98**

Type: **not specified**

## How can Geant4 evolve?

*Monday 26 September 2022 16:00 (30 minutes)*

Summary of the results of the survey

**Presenter:** ZABOROWSKA, Anna (CERN)

**Session Classification:** Plenary 3 - Collaboration Evolution

Contribution ID: **99**

Type: **not specified**

## **Discussions**

*Monday 26 September 2022 16:30 (1 hour)*

**Session Classification:** Plenary 3 - Collaboration Evolution

Contribution ID: **100**

Type: **not specified**

## Discussion

*Thursday 29 September 2022 15:00 (30 minutes)*

**Presenter:** Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Parallel 5A

Contribution ID: **101**

Type: **not specified**

## **Final implementation of RPWBA model in Geant4-DNA for proton transport up to 300 MeV**

*Thursday 29 September 2022 14:40 (20 minutes)*

**Presenter:** CORTES GIRALDO, Miguel Antonio (Universidad de Sevilla (ES))

**Session Classification:** Parallel 5A

Contribution ID: **102**

Type: **not specified**

## **Pyg4ometry : python library for creating, processing, converting and editing Geant4 geometry**

*Tuesday 27 September 2022 17:35 (25 minutes)*

**Presenters:** Prof. BOOGERT, Stewart Takashi (Royal Holloway, University of London); BOOGERT, Stewart (Royal Holloway, University of London)

**Session Classification:** Geant4 Technical Forum

Contribution ID: **103**

Type: **not specified**

## **Discussion**

*Thursday 29 September 2022 15:20 (10 minutes)*

**Session Classification:** Parallel 5B



Contribution ID: **104**

Type: **not specified**

## **Continuation of yesterday's talk on tuning FTF model parameters**

*Tuesday 27 September 2022 14:00 (20 minutes)*

**Presenter:** YARBA, Julia

**Session Classification:** Parallel 3B

Contribution ID: **105**

Type: **not specified**

## **Discussion**

*Monday 26 September 2022 15:00 (30 minutes)*

**Session Classification:** Parallel 1B