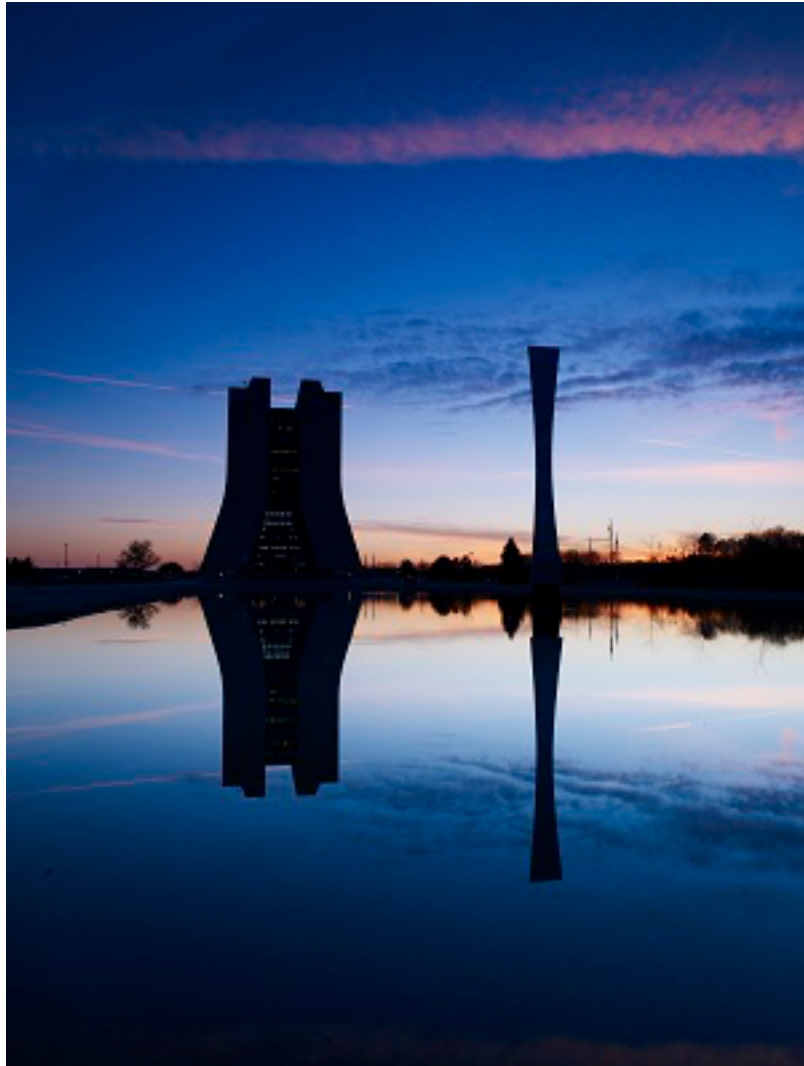


# 20th Geant4 Collaboration Meeting



## Report of Contributions

<https://indico.fnal.gov/e/geant4-15a>

Contribution ID: 0

Type: **not specified**

# Welcome to Fermilab

*Monday, 28 September 2015 09:00 (10 minutes)*

**Presenter:** Dr ROSER, Robert (Fermilab)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: 1

Type: **not specified**

## Parallel session 1A

*Friday, 2 October 2015 08:30 (10 minutes)*

**Presenters:** SAWKEY, Daren (Varian Medical Systems); Dr GUEYE, Paul (Hampton University); Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 2

Type: **not specified**

## Parallel session 1B

*Friday, 2 October 2015 08:40 (10 minutes)*

**Presenters:** JUN, Soon Yung (Fermilab); Dr ELVIRA, V. Daniel (Fermilab)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 3

Type: **not specified**

## Parallel session 2A

*Friday, 2 October 2015 08:50 (10 minutes)*

**Presenters:** SAWKEY, Daren (Varian Medical Systems); Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 4

Type: **not specified**

## Parallel session 2B

*Friday, 2 October 2015 09:00 (10 minutes)*

**Presenters:** PERL, Joseph (SLAC); Mr GARNIER, Laurent (OSUR / INSU / CNRS)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 5

Type: **not specified**

## Parallel session 2C

*Friday, 2 October 2015 09:10 (10 minutes)*

**Presenters:** Dr BAGLI, Enrico (INFN); Dr ASAI, Makoto (SLAC)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 6

Type: **not specified**

## Parallel session 3A

*Friday, 2 October 2015 09:20 (10 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Dr YARBA, Julia (FNAL)

**Session Classification:** Plenary 8 - Report from Parallel Sessions



Contribution ID: 7

Type: **not specified**

## **Parallel session 3B**

*Friday, 2 October 2015 09:30 (10 minutes)*

**Presenters:** HRIVNACOVA, Ivana (IN2P3/IPN Orsay); Dr GUMPLINGER, Peter (TRIUMF)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 8

Type: **not specified**

## Parallel session 4A

*Friday, 2 October 2015 09:40 (10 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Dr KELSEY, Michael (SLAC National Accelerator Laboratory)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 9

Type: **not specified**

## Parallel session 4B

*Friday, 2 October 2015 09:50 (10 minutes)*

**Presenters:** Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research); Dr APOSTOLAKIS, John (CERN)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: **10**

Type: **not specified**

## **Parallel session 5A**

*Friday, 2 October 2015 10:00 (10 minutes)*

**Presenters:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory); Dr HATCHER, Robert (FNAL/CD)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 11

Type: **not specified**

## Parallel session 5B

*Friday, 2 October 2015 10:10 (10 minutes)*

**Presenters:** Dr BAGLI, Enrico (INFN); VERDERI, Marc (LLR, Ecole polytechnique)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 12

Type: **not specified**

## Parallel session 5C

*Friday, 2 October 2015 10:20 (10 minutes)*

**Presenters:** Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research); Dr APOSTOLAKIS, John (CERN)

**Session Classification:** Plenary 8 - Report from Parallel Sessions

Contribution ID: 13

Type: **not specified**

## Parallel session 6A

*Friday, 2 October 2015 11:00 (10 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session

Contribution ID: 14

Type: **not specified**

## Parallel session 6B

*Friday, 2 October 2015 11:10 (10 minutes)*

**Presenters:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory); Dr MORGAN, Ben (University of Warwick)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session



Contribution ID: 15

Type: **not specified**

## Parallel session 7A

*Friday, 2 October 2015 11:20 (10 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session

Contribution ID: 16

Type: **not specified**

## **Parallel session 7B**

*Friday, 2 October 2015 11:30 (10 minutes)*

**Presenters:** Dr APOSTOLAKIS, John (CERN); JUN, Soon Yung (Fermilab)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session

Contribution ID: 17

Type: **not specified**

## Release schedule

*Friday, 2 October 2015 11:40 (20 minutes)*

**Presenter:** Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session

Contribution ID: **18**

Type: **not specified**

## **Next collaboration meeting**

*Friday, 2 October 2015 12:00 (10 minutes)*

**Presenter:** Dr BAGLI, Enrico (INFN)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session

Contribution ID: **19**

Type: **not specified**

## Closing remarks

*Friday, 2 October 2015 12:10 (20 minutes)*

**Presenters:** Dr ASAI, Makoto (SLAC); VERDERI, Marc (LLR, Ecole polytechnique)

**Session Classification:** Plenary 9 - Report from Parallel Sessions / Closing Session

Contribution ID: 20

Type: **not specified**

## **Recent developments in USolids/VecGeom, status & plans**

*Wednesday, 30 September 2015 08:30 (30 minutes)*

**Presenter:** Dr WENZEL, Sandro Christian (CERN PH/SFT)

**Session Classification:** Parallel 4B - Geometry & Transport

Contribution ID: 21

Type: **not specified**

## **Extensions to testing suite and effects on using coarse/precise safety calculation**

*Wednesday, 30 September 2015 09:20 (20 minutes)*

**Presenters:** Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research); Dr NIKITINA, Tatiana (CERN PH/SFT)

**Session Classification:** Parallel 4B - Geometry & Transport

Contribution ID: 22

Type: **not specified**

## **Open issues in transportation and transport in field**

*Wednesday, 30 September 2015 09:40 (20 minutes)*

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

**Session Classification:** Parallel 4B - Geometry & Transport



Contribution ID: 23

Type: **not specified**

## Discussion

*Wednesday, 30 September 2015 10:00 (30 minutes)*

**Session Classification:** Parallel 4B - Geometry & Transport

Contribution ID: 24

Type: **not specified**

## Interfacing USolids/VecGeom in Geant4

*Wednesday, 30 September 2015 09:00 (20 minutes)*

**Presenter:** LIMA, Guilherme (Fermilab)

**Session Classification:** Parallel 4B - Geometry & Transport

Contribution ID: 25

Type: **not specified**

## Drupal Migration

*Monday, 28 September 2015 16:00 (30 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Dr FOLGER, Gunter (CERN)

**Session Classification:** Plenary 3 - Tools, documents, third general paper

Contribution ID: 26

Type: **not specified**

## Physics validation tools

*Monday, 28 September 2015 16:30 (30 minutes)*

**Presenter:** Dr WENZEL, Hans (Fermilab)

**Session Classification:** Plenary 3 - Tools, documents, third general paper

Contribution ID: 27

Type: **not specified**

## **Users' Guides and physics list documentation**

*Monday, 28 September 2015 17:00 (30 minutes)*

**Presenter:** Dr KELSEY, Michael (SLAC National Accelerator Laboratory)

**Session Classification:** Plenary 3 - Tools, documents, third general paper

Contribution ID: 28

Type: **not specified**

## The general Geant4 paper

*Monday, 28 September 2015 17:30 (30 minutes)*

**Presenter:** Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Plenary 3 - Tools, documents, third general paper

Contribution ID: 29

Type: **not specified**

## Geometry Updates

*Tuesday, 29 September 2015 14:00 (15 minutes)*

**Presenters:** Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research); Dr APOSTOLAKIS, John (CERN)

**Session Classification:** Plenary 4 - Updates of Kernel, Geometry

Contribution ID: **30**

Type: **not specified**

## **Random Number Generators - the MixMax Generator**

*Tuesday, 29 September 2015 14:15 (15 minutes)*

**Presenters:** Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research); Dr APOSTOLAKIS, John (CERN)

**Session Classification:** Plenary 4 - Updates of Kernel, Geometry



Contribution ID: **31**

Type: **not specified**

## **G4Analysis Updates**

**Presenter:** HRIVNACOVA, Ivana (IN2P3/IPN Orsay)

Contribution ID: 32

Type: **not specified**

## Updates on Run, Event and Detector

*Tuesday, 29 September 2015 14:30 (20 minutes)*

**Presenters:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory); Dr ASAI, Makoto (SLAC)

**Session Classification:** Plenary 4 - Updates of Kernel, Geometry

Contribution ID: 33

Type: **not specified**

## Trackinfo Enhancements

*Tuesday, 29 September 2015 14:50 (15 minutes)*

**Presenter:** VERDERI, Marc (LLR, Ecole polytechnique)

**Session Classification:** Plenary 4 - Updates of Kernel, Geometry

Contribution ID: 34

Type: **not specified**

## Discussion

*Tuesday, 29 September 2015 15:20 (10 minutes)*

**Presenter:** Dr HOWARD, Alexander (ETH, Zurich)

**Session Classification:** Plenary 4 - Updates of Kernel, Geometry

Contribution ID: 35

Type: **not specified**

## Update on CMake build

*Monday, 28 September 2015 14:00 (20 minutes)*

**Presenter:** Dr MORGAN, Ben (University of Warwick)

**Session Classification:** Plenary 2 - Updates of GUI/Vis, examples, cmake, etc

Contribution ID: 36

Type: **not specified**

## Update on analysis

*Monday, 28 September 2015 14:20 (20 minutes)*

**Presenters:** BARRAND, Guy (LAL); HRIVNACOVA, Ivana (IPN Orsay)

**Session Classification:** Plenary 2 - Updates of GUI/Vis, examples, cmake, etc

Contribution ID: 37

Type: **not specified**

## Update on Vis & GUIs

*Monday, 28 September 2015 14:40 (20 minutes)*

**Presenter:** Mr GARNIER, Laurent (OSUR / INSU / CNRS)

**Session Classification:** Plenary 2 - Updates of GUI/Vis, examples, cmake, etc

Contribution ID: **38**

Type: **not specified**

## **Update on Basic & Extended Examples**

**Presenter:** HRIVNACOVA, Ivana (IPN Orsay)



Contribution ID: 39

Type: **not specified**

## Update on Advanced Examples

*Monday, 28 September 2015 15:15 (15 minutes)*

**Presenter:** ROMANO, Francesco (INFN LNS)

**Session Classification:** Plenary 2 - Updates of GUI/Vis, examples, cmake, etc

Contribution ID: 40

Type: **not specified**

## Radioactive decay in super-heavy nuclei

*Thursday, 1 October 2015 11:00 (15 minutes)*

**Presenter:** Dr SARMIENTO, Luis (Lund University)

**Session Classification:** Parallel 6A - Low-energy Hadronic Physics

Contribution ID: 41

Type: **not specified**

## TARC Validation

*Thursday, 1 October 2015 11:15 (15 minutes)*

**Presenter:** Dr HOWARD, Alexander (ETH, Zurich)

**Session Classification:** Parallel 6A - Low-energy Hadronic Physics

Contribution ID: 42

Type: **not specified**

## NeutronHP-ParticleHP Merger

*Thursday, 1 October 2015 11:30 (15 minutes)*

**Presenter:** Dr KOI, Tatsumi (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 6A - Low-energy Hadronic Physics

Contribution ID: 43

Type: **not specified**

## Low Energy Requirements

*Thursday, 1 October 2015 11:45 (15 minutes)*

**Session Classification:** Parallel 6A - Low-energy Hadronic Physics

Contribution ID: 44

Type: **not specified**

## Plans for Low Energy Hadronics

*Thursday, 1 October 2015 12:00 (45 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Parallel 6A - Low-energy Hadronic Physics

Contribution ID: 45

Type: **not specified**

## **Developments in muon-nuclear models**

*Wednesday, 30 September 2015 08:30 (20 minutes)*

**Presenters:** Dr WRIGHT, Dennis (SLAC); Dr LYNCH, Kevin (York College/CUNY)

**Session Classification:** Parallel 4A - Hadronic models: development & validation - part II

Contribution ID: 46

Type: **not specified**

## **Progress on Radioactive Decay and PhotoEvaporation database**

*Wednesday, 30 September 2015 08:50 (20 minutes)*

**Presenters:** Dr WRIGHT, Dennis (SLAC); Dr DESORGHER, Laurent (SapceIT GmbH)

**Session Classification:** Parallel 4A - Hadronic models: development & validation - part II



Contribution ID: 47

Type: **not specified**

## Angular Correlations in PhotoEvaporation

*Wednesday, 30 September 2015 09:10 (20 minutes)*

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

**Session Classification:** Parallel 4A - Hadronic models: development & validation - part II

Contribution ID: 48

Type: **not specified**

## **Requests for development in low-energy hadronics**

*Wednesday, 30 September 2015 09:30 (20 minutes)*

**Presenter:** Dr TAYLOR, Michael (University of Manchester)

**Session Classification:** Parallel 4A - Hadronic models: development & validation - part II

Contribution ID: 49

Type: **not specified**

## Discussion

*Wednesday, 30 September 2015 09:50 (40 minutes)*

**Session Classification:** Parallel 4A - Hadronic models: development & validation - part II

Contribution ID: 50

Type: **not specified**

## **medical/dna examples**

*Tuesday, 29 September 2015 11:00 (25 minutes)*

**Presenters:** KARAMITOS, Mathieu (Notre Dame Radiation Laboratory, University of Notre-Dame, Indiana); Dr INCERTI, SEBASTIEN (CNRS/IN2P3)

**Session Classification:** Parallel 3B -Basic and Extended Examples

Contribution ID: 51

Type: **not specified**

## **exoticphysics/ucn example**

*Tuesday, 29 September 2015 11:25 (10 minutes)*

**Presenter:** Dr GUMPLINGER, Peter (TRIUMF)

**Session Classification:** Parallel 3B -Basic and Extended Examples

Contribution ID: 52

Type: **not specified**

## **parameterisation/Par02**

*Tuesday, 29 September 2015 11:35 (10 minutes)*

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

**Session Classification:** Parallel 3B -Basic and Extended Examples

Contribution ID: 53

Type: **not specified**

## **biasing/GB04**

*Tuesday, 29 September 2015 11:45 (5 minutes)*

**Presenter:** VERDERI, Marc (LLR, Ecole polytechnique)

**Session Classification:** Parallel 3B -Basic and Extended Examples

Contribution ID: 54

Type: **not specified**

## **eventgenerator/basicPrimary**

*Tuesday, 29 September 2015 11:50 (5 minutes)*

**Presenter:** MAIRE, Michel (IN2P3/LAPP)

**Session Classification:** Parallel 3B -Basic and Extended Examples



Contribution ID: 55

Type: **not specified**

## **parallel/MPI/ex03**

*Tuesday, 29 September 2015 11:55 (10 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 3B -Basic and Extended Examples

Contribution ID: 56

Type: **not specified**

## **Work plan items & discussion**

*Tuesday, 29 September 2015 12:05 (30 minutes)*

**Presenter:** HRIVNACOVA, Ivana (IPN Orsay)

**Session Classification:** Parallel 3B -Basic and Extended Examples

Contribution ID: 57

Type: **not specified**

## **G4CP Results and Issues from LHC experiments**

*Monday, 28 September 2015 11:00 (25 minutes)*

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

**Session Classification:** Parallel 1B Computing Performance

Contribution ID: 58

Type: **not specified**

## **G4CP Results and Issues from Intensity Frontier**

*Monday, 28 September 2015 11:25 (25 minutes)*

**Presenter:** Dr HATCHER, Robert (FNAL/CD)

**Session Classification:** Parallel 1B Computing Performance

Contribution ID: 59

Type: **not specified**

## TAU

*Monday, 28 September 2015 11:50 (25 minutes)*

**Presenter:** NORRIS, Boyana (University of Oregon)

**Session Classification:** Parallel 1B Computing Performance

Contribution ID: **60**

Type: **not specified**

## Memory Leakage Monitoring

*Monday, 28 September 2015 12:15 (20 minutes)*

**Presenters:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory); Dr COSMO, Gabriele (CERN - European Organization for Nuclear Research); JUN, Soon Yung (Fermilab)

**Session Classification:** Parallel 1B Computing Performance

Contribution ID: **61**

Type: **not specified**

## **Discussion**

*Monday, 28 September 2015 12:35 (10 minutes)*

**Session Classification:** Parallel 1B Computing Performance

Contribution ID: 62

Type: **not specified**

## **Overview of Geant4 Hadronic Models Development**

*Tuesday, 29 September 2015 16:00 (15 minutes)*

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

**Session Classification:** Plenary 5 - Updates on Hadronic Physics (including validation)



Contribution ID: 63

Type: **not specified**

## **Radioactive Decays Status and Plans**

*Tuesday, 29 September 2015 16:15 (20 minutes)*

**Presenter:** Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Plenary 5 - Updates on Hadronic Physics (including validation)

Contribution ID: 64

Type: **not specified**

## **ParticleHP and NeutronHp Status and Plans**

*Tuesday, 29 September 2015 16:35 (20 minutes)*

**Presenter:** Dr ARCE, Pedro (CIEMAT)

**Session Classification:** Plenary 5 - Updates on Hadronic Physics (including validation)

Contribution ID: 65

Type: **not specified**

## **GND/LEND Status and Plans**

*Tuesday, 29 September 2015 16:55 (15 minutes)*

**Presenter:** Dr KOI, Tatsumi (SLAC National Accelerator Laboratory)

**Session Classification:** Plenary 5 - Updates on Hadronic Physics (including validation)

Contribution ID: **66**

Type: **not specified**

## **Status of Geant4 Hadronic Validation**

*Tuesday, 29 September 2015 17:10 (15 minutes)*

**Presenter:** Dr YARBA, Julia (FNAL)

**Session Classification:** Plenary 5 - Updates on Hadronic Physics (including validation)

Contribution ID: 67

Type: **not specified**

## Discussion

*Tuesday, 29 September 2015 17:25 (35 minutes)*

**Session Classification:** Plenary 5 - Updates on Hadronic Physics (including validation)

Contribution ID: **68**

Type: **not specified**

## **FNAL Validation Update**

*Thursday, 1 October 2015 08:30 (20 minutes)*

**Presenter:** Dr WENZEL, Hans (Fermilab)

**Session Classification:** Parallel 5A - Physics Lists and Validation Tools WG Matters

Contribution ID: **69**

Type: **not specified**

## **A new Process Level Validation Tool**

*Thursday, 1 October 2015 08:50 (30 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 5A - Physics Lists and Validation Tools WG Matters

Contribution ID: 70

Type: **not specified**

## Discussion on Physics List documentation

*Thursday, 1 October 2015 09:40 (40 minutes)*

**Session Classification:** Parallel 5A - Physics Lists and Validation Tools WG Matters



Contribution ID: 71

Type: **not specified**

## **C++11 Compilers support**

*Thursday, 1 October 2015 11:00 (20 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 6B - C++11 Migration

Contribution ID: 72

Type: **not specified**

## Status of Fast Cross-Section

*Thursday, 1 October 2015 16:00 (20 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 7A - Technical Aspects Related to Hadronic Physics

Contribution ID: 73

Type: **not specified**

## **Report from CALICE results and shower shape discussion**

*Thursday, 1 October 2015 16:20 (50 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 7A - Technical Aspects Related to Hadronic Physics

Contribution ID: 74

Type: **not specified**

## **Possible RetryInteraction exception**

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

Contribution ID: 75

Type: **not specified**

## **Deletion policy of physics processes for MT**

*Thursday, 1 October 2015 17:30 (30 minutes)*

**Presenter:** Dr KOI, Tatsumi (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 7A - Technical Aspects Related to Hadronic Physics

Contribution ID: 76

Type: **not specified**

## GATE GPU

*Thursday, 1 October 2015 16:00 (30 minutes)*

**Presenter:** BERT, Julien

**Session Classification:** Parallel 7B - Vectors and coprocessors

Contribution ID: 77

Type: **not specified**

## **GeantV: Status and Plan**

*Thursday, 1 October 2015 16:30 (30 minutes)*

**Presenter:** GHEATA, Andrei (CERN)

**Session Classification:** Parallel 7B - Vectors and coprocessors

Contribution ID: 78

Type: **not specified**

## Performance of VecGeom

*Thursday, 1 October 2015 17:00 (30 minutes)*

**Presenter:** WENZEL, Sandro (CERN)

**Session Classification:** Parallel 7B - Vectors and coprocessors



Contribution ID: 79

Type: **not specified**

## Vector Physics Model

*Thursday, 1 October 2015 17:30 (20 minutes)*

**Presenter:** JUN, Soon Yung (Fermilab)

**Session Classification:** Parallel 7B - Vectors and coprocessors

Contribution ID: **80**

Type: **not specified**

## Discussion

*Thursday, 1 October 2015 17:50 (10 minutes)*

**Session Classification:** Parallel 7B - Vectors and coprocessors

Contribution ID: **81**

Type: **not specified**

## **Mini Course on C++11 Features**

*Thursday, 1 October 2015 11:40 (1 hour)*

**Presenter:** HRIVNACOVA, Ivana (IN2P3/IPN Orsay)

**Session Classification:** Parallel 6B - C++11 Migration

Contribution ID: **82**

Type: **not specified**

## **CMake Support for C++11/14/1z**

*Thursday, 1 October 2015 11:20 (20 minutes)*

**Presenter:** Dr MORGAN, Ben (University of Warwick)

**Session Classification:** Parallel 6B - C++11 Migration

Contribution ID: **83**

Type: **not specified**

## **Update on standard EM physics**

*Wednesday, 30 September 2015 11:00 (30 minutes)*

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

**Session Classification:** Plenary 6 - Updates on EM Physics

Contribution ID: **84**

Type: **not specified**

## **Update on Low Energy / DNA physics**

*Wednesday, 30 September 2015 11:30 (30 minutes)*

**Presenter:** Dr INCERTI, SEBASTIEN (CNRS/IN2P3)

**Session Classification:** Plenary 6 - Updates on EM Physics

Contribution ID: 85

Type: **not specified**

## **Multiple scattering upgrade: better lateral displacement (L. Urban)**

*Tuesday, 29 September 2015 08:30 (30 minutes)*

**Primary author:** URBAN, Laszlo (CERN)

**Session Classification:** Parallel 2A - New EM Validation Results

Contribution ID: **86**

Type: **not specified**

## **Validation of multiple scattering angle**

*Tuesday, 29 September 2015 09:00 (20 minutes)*

**Presenter:** SAWKEY, Daren (Varian Medical Systems)

**Session Classification:** Parallel 2A - New EM Validation Results



Contribution ID: 87

Type: **not specified**

## **Recent validation results from the ESA ROSSINI2 project**

*Tuesday, 29 September 2015 10:00 (20 minutes)*

**Presenter:** Dr SANTIN, Giovanni (ESA / ESTEC)

**Session Classification:** Parallel 2A - New EM Validation Results

Contribution ID: **88**

Type: **not specified**

## **Systematic test of gamma-ray models with NIST data (S. Guatelli)**

*Tuesday, 29 September 2015 09:20 (20 minutes)*

**Primary author:** GUATELLI, Susanna (Univ of Wollongong)

**Session Classification:** Parallel 2A - New EM Validation Results

Contribution ID: **89**

Type: **not specified**

## **Therapeutic C-12 Range benchmarking in Geant4**

*Tuesday, 29 September 2015 09:40 (20 minutes)*

**Presenter:** GUATELLI, Susanna (Univ of Wollongong)

**Session Classification:** Parallel 2A - New EM Validation Results

Contribution ID: **90**

Type: **not specified**

## Meeting Logistics

*Monday, 28 September 2015 09:10 (10 minutes)*

**Presenter:** Dr ELVIRA, V. Daniel (Fermilab)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: **91**

Type: **not specified**

## Meeting Objectives

*Monday, 28 September 2015 09:20 (10 minutes)*

**Presenter:** Dr ASAI, Makoto (SLAC)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: 92

Type: **not specified**

## **Geant4 user requirements from HEP Energy Frontier Experiments**

*Monday, 28 September 2015 09:30 (12 minutes)*

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

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: 93

Type: **not specified**

## **Geant4 user requirements from Intensity Frontier Experiments**

*Monday, 28 September 2015 09:42 (12 minutes)*

**Presenter:** Dr HATCHER, Robert (FNAL/CD)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: 94

Type: **not specified**

## **Geant4 user requirements from Cosmic and Underground Experiments**

*Monday, 28 September 2015 09:54 (12 minutes)*

**Presenter:** Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements



Contribution ID: 95

Type: **not specified**

## **Geant4 user requirements from Medical Domain**

*Monday, 28 September 2015 10:06 (12 minutes)*

**Presenter:** PERL, Joseph (SLAC)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: 96

Type: **not specified**

## **Geant4 user requirements from Space Domain**

*Monday, 28 September 2015 10:18 (12 minutes)*

**Presenter:** Dr SANTIN, Giovanni (ESA / ESTEC)

**Session Classification:** Plenary 1 - Opening Addresses / Open Requirements

Contribution ID: 97

Type: **not specified**

## Physics Lists in Extended Examples

*Thursday, 1 October 2015 09:20 (10 minutes)*

**Presenters:** HRIVNACOVA, Ivana (IPN Orsay); HRIVNACOVA, Ivana (IN2P3/IPN Orsay)

**Session Classification:** Parallel 5A - Physics Lists and Validation Tools WG Matters

Contribution ID: **98**

Type: **not specified**

## Welcome

*Monday, 28 September 2015 11:00 (5 minutes)*

**Presenter:** GUEYE, Paul (Hampton University)

**Session Classification:** Parallel 1A - New EM Models

Contribution ID: 99

Type: **not specified**

## **Goudsmit-Saunderson multiple scattering model**

*Monday, 28 September 2015 11:05 (30 minutes)*

**Presenter:** NOVAK, Mihaly (CERN)

**Session Classification:** Parallel 1A - New EM Models

Contribution ID: **100**

Type: **not specified**

## **Status of G4DNA Chemistry**

*Monday, 28 September 2015 11:35 (30 minutes)*

**Presenter:** MATHIEU, Karamitros (CENBG/CNRS)

**Session Classification:** Parallel 1A - New EM Models

Contribution ID: **101**

Type: **not specified**

# **A Novel, Moment-Preserving Electron Transport Method**

*Monday, 28 September 2015 12:05 (30 minutes)*

**Presenter:** DIXON, David (UNM)

**Session Classification:** Parallel 1A - New EM Models

Contribution ID: **102**

Type: **not specified**

## **EM mini-Forum**

*Monday, 28 September 2015 12:35 (10 minutes)*

**Session Classification:** Parallel 1A - New EM Models



Contribution ID: **103**

Type: **not specified**

## **C++11 Style Guidelines Document**

*Thursday, 1 October 2015 14:20 (20 minutes)*

**Presenter:** HRIVNACOVA, Ivana (IN2P3/IPN Orsay)

**Session Classification:** Plenary 7 - C++11/14 migration, MT/MPI

Contribution ID: **104**

Type: **not specified**

## **MPI Status and Upcoming Work**

*Thursday, 1 October 2015 14:40 (20 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Plenary 7 - C++11/14 migration, MT/MPI

Contribution ID: **105**

Type: **not specified**

## **Session Introduction**

*Thursday, 1 October 2015 08:30 (5 minutes)*

**Presenters:** Dr BAGLI, Enrico (INFN); VERDERI, Marc (LLR, Ecole polytechnique)

**Session Classification:** Parallel 5B - Biasing & Channeling

Contribution ID: **106**

Type: **not specified**

## **Status of Geant4 Reverse MC**

*Thursday, 1 October 2015 08:35 (20 minutes)*

**Presenter:** Dr SANTIN, Giovanni (ESA / ESTEC)

**Session Classification:** Parallel 5B - Biasing & Channeling

Contribution ID: **107**

Type: **not specified**

## **Generic-based versus Standard Geometrical Importance Biasing**

*Thursday, 1 October 2015 08:55 (30 minutes)*

**Presenter:** Dr HOWARD, Alexander (ETH, Zurich)

**Session Classification:** Parallel 5B - Biasing & Channeling

Contribution ID: **108**

Type: **not specified**

## **Status of Channeling, and requirements from Parallel 2C 'Solid State Physics'**

*Thursday, 1 October 2015 09:25 (30 minutes)*

**Presenter:** Dr BAGLI, Enrico (INFN)

**Session Classification:** Parallel 5B - Biasing & Channeling

Contribution ID: **109**

Type: **not specified**

## **Status of Generic Biasing**

*Thursday, 1 October 2015 09:55 (20 minutes)*

**Presenter:** VERDERI, Marc (LLR, Ecole polytechnique)

**Session Classification:** Parallel 5B - Biasing & Channeling

Contribution ID: **110**

Type: **not specified**

## **General Discussion**

*Thursday, 1 October 2015 10:15 (15 minutes)*

**Session Classification:** Parallel 5B - Biasing & Channeling



Contribution ID: **111**

Type: **not specified**

## **Geant4 String Models**

*Tuesday, 29 September 2015 11:00 (35 minutes)*

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

**Session Classification:** Parallel 3A - Hadronic models: development & validation - part I

Contribution ID: 112

Type: **not specified**

## **Geant4 Cascade Models**

*Tuesday, 29 September 2015 11:35 (20 minutes)*

**Presenter:** Dr KELSEY, Michael (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 3A - Hadronic models: development & validation - part I

Contribution ID: 113

Type: **not specified**

## **Status Report on the Varied Model Parameters Interface (Bertini)**

*Tuesday, 29 September 2015 11:55 (20 minutes)*

**Presenter:** Dr YARBA, Julia (FNAL)

**Session Classification:** Parallel 3A - Hadronic models: development & validation - part I

Contribution ID: 114

Type: **not specified**

## Status of the Precompound Model

*Tuesday, 29 September 2015 12:15 (20 minutes)*

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

**Session Classification:** Parallel 3A - Hadronic models: development & validation - part I

Contribution ID: **115**

Type: **not specified**

## **Discssion**

*Tuesday, 29 September 2015 12:35 (10 minutes)*

**Session Classification:** Parallel 3A - Hadronic models: development & validation - part I

Contribution ID: **116**

Type: **not specified**

**test delete**

Contribution ID: 117

Type: **not specified**

## **Validation low-mass single diffraction model**

*Thursday, 1 October 2015 17:10 (10 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Prof. GRICHINE, Vladimir (LPI)

**Session Classification:** Parallel 7A - Technical Aspects Related to Hadronic Physics

Contribution ID: **118**

Type: **not specified**

## **Validation of kaon-proton elastic scattering**

*Thursday, 1 October 2015 17:20 (10 minutes)*

**Presenters:** Dr RIBON, Alberto (CERN); Prof. GRICHINE, Vladimir (LPI)

**Session Classification:** Parallel 7A - Technical Aspects Related to Hadronic Physics



Contribution ID: **119**

Type: **not specified**

## Physics List Factory Update

*Thursday, 1 October 2015 09:30 (10 minutes)*

**Presenter:** Dr HATCHER, Robert (FNAL/CD)

**Session Classification:** Parallel 5A - Physics Lists and Validation Tools WG Matters

Contribution ID: 120

Type: **not specified**

## Summary of C++11 Taskforce Work

*Thursday, 1 October 2015 14:00 (20 minutes)*

**Presenter:** Dr DOTTI, Andrea (SLAC National Accelerator Laboratory)

**Session Classification:** Plenary 7 - C++11/14 migration, MT/MPI

Contribution ID: **121**

Type: **not specified**

## **General status report and prospects**

*Friday, 2 October 2015 13:40 (10 minutes)*

**Presenter:** Dr ASAI, Makoto (SLAC)

**Session Classification:** Geant4 Technical Forum

Contribution ID: 122

Type: **not specified**

## **Physics status report and prospects**

*Friday, 2 October 2015 13:50 (10 minutes)*

**Presenter:** Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Geant4 Technical Forum

Contribution ID: 123

Type: **not specified**

## **Requirements of Intensity Frontier experiments**

*Friday, 2 October 2015 14:00 (30 minutes)*

**Presenter:** Dr FIELDS, Laura (Fermilab)

**Session Classification:** Geant4 Technical Forum

Contribution ID: 124

Type: **not specified**

## Requirements from LZ experiment

*Friday, 2 October 2015 14:30 (10 minutes)*

**Primary author:** Dr VUOSALO, Carl (University of Wisconsin-Madison)

**Presenter:** Dr VUOSALO, Carl (University of Wisconsin-Madison)

**Session Classification:** Geant4 Technical Forum

Contribution ID: 125

Type: **not specified**

## Requirements from CDMS experiment

*Friday, 2 October 2015 14:40 (10 minutes)*

**Presenter:** Dr WRIGHT, Dennis (SLAC)

**Session Classification:** Geant4 Technical Forum

Contribution ID: 126

Type: **not specified**

## Open discussion

*Friday, 2 October 2015 14:50 (10 minutes)*

**Session Classification:** Geant4 Technical Forum



Contribution ID: 127

Type: **not specified**

## **G4CMP - Phonon**

*Tuesday, 29 September 2015 08:30 (20 minutes)*

**Presenter:** Dr KELSEY, Michael (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 2C - Solid State Physics

Contribution ID: **128**

Type: **not specified**

## **G4CMP - charge-carrier**

*Tuesday, 29 September 2015 08:50 (20 minutes)*

**Presenter:** Dr KELSEY, Michael (SLAC National Accelerator Laboratory)

**Session Classification:** Parallel 2C - Solid State Physics

Contribution ID: **129**

Type: **not specified**

## **MicroElec**

*Tuesday, 29 September 2015 09:10 (20 minutes)*

**Presenter:** Dr RAINE, Mélanie (CEA)

**Session Classification:** Parallel 2C - Solid State Physics

Contribution ID: **130**

Type: **not specified**

## **Channeling**

*Tuesday, 29 September 2015 09:30 (20 minutes)*

**Presenter:** Dr BAGLI, Enrico (INFN)

**Session Classification:** Parallel 2C - Solid State Physics

Contribution ID: **131**

Type: **not specified**

## **Discussion**

*Tuesday, 29 September 2015 09:50 (40 minutes)*

**Session Classification:** Parallel 2C - Solid State Physics

Contribution ID: 132

Type: **not specified**

## Update on Basic & Extended Examples

*Monday, 28 September 2015 15:00 (15 minutes)*

**Presenter:** HRIVNACOVA, Ivana (IPN Orsay)

**Session Classification:** Plenary 2 - Updates of GUI/Vis, examples, cmake, etc

Contribution ID: 133

Type: **not specified**

## **Validation of EM physics**

*Wednesday, 30 September 2015 12:00 (20 minutes)*

**Presenter:** SAWKEY, Daren (Varian Medical Systems)

**Session Classification:** Plenary 6 - Updates on EM Physics

Contribution ID: 134

Type: **not specified**

## Discussion

*Tuesday, 29 September 2015 10:20 (10 minutes)*

**Session Classification:** Parallel 2A - New EM Validation Results



Contribution ID: 135

Type: **not specified**

## Updates in Vis

*Tuesday, 29 September 2015 08:30 (20 minutes)*

**Presenters:** PERL, Joseph (SLAC); Mr GARNIER, Laurent (OSUR / INSU / CNRS)

**Session Classification:** Parallel 2B - Updates in vis

Contribution ID: 136

Type: **not specified**

## Multithreading visualisation

*Tuesday, 29 September 2015 08:50 (25 minutes)*

**Presenter:** ALLISON, John (Geant4 Associates)

**Session Classification:** Parallel 2B - Updates in vis

Contribution ID: 137

Type: **not specified**

## Problems with Qt driver

*Tuesday, 29 September 2015 09:15 (10 minutes)*

**Presenter:** Mr GARNIER, Laurent (OSUR / INSU / CNRS)

**Session Classification:** Parallel 2B - Updates in vis

Contribution ID: **138**

Type: **not specified**

## **How to test vis**

*Tuesday, 29 September 2015 09:25 (25 minutes)*

**Presenter:** Mr GARNIER, Laurent (OSUR / INSU / CNRS)

**Session Classification:** Parallel 2B - Updates in vis

Contribution ID: **139**

Type: **not specified**

## **Discussion**

*Tuesday, 29 September 2015 09:50 (40 minutes)*

**Session Classification:** Parallel 2B - Updates in vis

Contribution ID: 140

Type: **not specified**

## **Intro to C++11 atomics and proposal for G4atomic**

*Thursday, 1 October 2015 15:00 (15 minutes)*

**Primary author:** Mr MADSEN, Jonathan (Texas A&M University)

**Presenter:** Mr MADSEN, Jonathan (Texas A&M University)

**Session Classification:** Plenary 7 - C++11/14 migration, MT/MPI

Contribution ID: **141**

Type: **not specified**

## **Discussion**

*Wednesday, 30 September 2015 12:20 (10 minutes)*

**Session Classification:** Plenary 6 - Updates on EM Physics

Contribution ID: 142

Type: **not specified**

## Short update on Stepper Development

*Thursday, 1 October 2015 08:30 (15 minutes)*

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

**Session Classification:** Parallel 5C - Field transport working session



Contribution ID: 143

Type: **not specified**

## **Working session - investigation of 'Locator' issue**

*Thursday, 1 October 2015 08:55 (1h 15m)*

**Session Classification:** Parallel 5C - Field transport working session

Contribution ID: **144**

Type: **not specified**

## Welcome

*Friday, 2 October 2015 13:30 (10 minutes)*

**Presenter:** MEYER, Tim (Fermilab)

**Session Classification:** Geant4 Technical Forum