




WG 5.2.1 Meeting Simulation - Phase-I

October 6th 2022
Marco Leite (USP)

WG 5.2.1 Simulation Phase-I

Minutes from Oct. 12th. 2022 meeting

Attendance : M. Leite, G. Saito, M. Morales, R. Buhler Hide   

Introduction (M. Leite)

- Minutes from previous meeting: no comments
- Described the open issues, the severity and the effort needed to work on each one

TCAD Simulation (R. Buhler)

- No news, will contact Taylor from UCSC by e-mail to explain the issue
- Will meet Friday Oct. 07 13:30 with M. Leite for a Gitlab walk through

Geant4 Simulation (M. Morales)

- Implemented Geant4 physics list used in medical physics, which loads all process of interest (closes issue)
- Logic volumes implementation OK, will use it to write data to ROOT files
- Question on radiation entrance side. Significant absorption in top AC-LGAD structures -> needs evaluation
- Will meet Monday (time TBD) for gitlab walk through

Action Items (for next meeting Oct. 13th)

- TCAD Simulation (R. Buhler)
 - Contact Taylor by email today (Oct. 6th) about the issue on running TCAD
 - Extract E-Field for AC-Baseline Example on gitlab
 - Validate Simulation against Taylor's results
 - Present the finding by next meeting (Oct. 13th.)
- Geant4 Simulation (M. Morales)
 - Write charge information in ROOT File
 - Upload 1st version of the code in Gitlab

M. Leite, 06/10/2022

🕒 06/10/2022, 17:31 👤 Marco Lisboa Leite

WG 5.2.1 Simulation Phase-I - Gitlab Issues

Project issues in Gitlab as of Today (13/10/2022)

Geant4 4 19

Validate advanced GDML Geometry construction
Effort Medium Feature New
Priority Medium
Oct 27 4
Needs attention
usp9/UFSD/simulati... #2

Save data in ROOT TTree format
Effort Medium Feature New
Priority Medium
Oct 6 5 On track
usp9/UFSD/simula... #7

Edit README.md
Effort Low Priority High
Oct 3 7
usp9/UFSD/simulati... #8

Push current version to gitlab
Effort Low Priority High
Oct 20 3
usp9/UFSD/simulation/... #9

TCAD 4 31

Explore the AC-LGAD first example in Sentaurus (UCSC)
Effort Medium Feature New
Priority High
Nov 3 5 On track
Oct 6 9
Needs attention
usp9/UFSD/simula... #1

Generate electrical field for the AC-LGAD structures from Taylor's example
Effort Medium
Priority Blocking
Oct 6 7
usp9/UFSD/simula... #4

Contact Taylor to understand error in his example
Effort Low Priority Blocking
Oct 4 7
Needs attention
usp9/UFSD/si... #2

Extract geometry information for Taylor AC-LGAD example file
Effort Low Priority High
Oct 4 8 On track
usp9/UFSD/simulati... #3

KDetSim 1 5

Fix compilation errors
Effort High Priority Medium
Nov 3 5 On track
usp9/UFSD/simula... #1

OPEN

Push current version to gitlab
usp9/UFSD/simulation/geant4-simulations#9 · created 1 week ago by Marco Leite Oct 20, 2022 3
Effort Low Geant4 Priority High updated 4 minutes ago

Edit README.md
usp9/UFSD/simulation/geant4-simulations#8 · created 1 week ago by Marco Leite Oct 3, 2022 7
Effort Low Geant4 Priority High updated 1 week ago

Fix compilation errors
usp9/UFSD/simulation/kdetsim#1 · created 1 week ago by Marco Leite Nov 3, 2022 5 On track
Effort High KDetSim Priority Medium updated 1 week ago

Generate electrical field for the AC-LGAD structures from Taylor's example
usp9/UFSD/simulation/tcad-simulations#4 · created 1 week ago by Marco Leite Oct 6, 2022 7
Effort Medium Priority Blocking TCAD updated 1 week ago

Extract geometry information for Taylor AC-LGAD example file
usp9/UFSD/simulation/tcad-simulations#3 · created 1 week ago by Marco Leite Oct 4, 2022 8
On track Effort Low Priority High TCAD updated 1 week ago

Contact Taylor to understand error in his example
usp9/UFSD/simulation/tcad-simulations#2 · created 1 week ago by Marco Leite Oct 4, 2022 7
Needs attention Effort Low Priority Blocking TCAD updated 1 week ago

Save data in ROOT TTree format
usp9/UFSD/simulation/geant4-simulations#7 · created 1 week ago by Marco Leite Oct 6, 2022 5
On track Effort Medium Feature New Geant4 Priority Medium updated 1 week ago

Validate advanced GDML Geometry construction
usp9/UFSD/simulation/geant4-simulations#2 · created 2 weeks ago by Marco Leite Oct 27, 2022 4
Needs attention Effort Medium Feature New Geant4 Priority Medium updated 6 days ago

Explore the AC-LGAD first example in Sentaurus (UCSC) and development
usp9/UFSD/simulation/tcad-simulations#1 · created 1 month ago by Marco Leite TCAD Initial configuration Oct 6, 2022 9
Needs attention Effort Medium Feature New Priority High TCAD updated 1 week ago