

WG4 Updates

Marco Mandurrino

Håkan Wennlöf

2nd WG4 General Meeting

5 August, 2024

Today's agenda

- Sub-groups organization
 - we **updated** the **list** already presented during the last meeting
- Round-table presentations
 - we have not received any proposals
- Dates of summer meetings

Sub-groups organization

Previous categories (topics-oriented)

- Monolithic and hybrid sensor simulations
- Front-end electronics simulations
- Radiation damage and radiation environment simulations
- Gain layer/impact ionization simulations
- Non-silicon sensor simulations
- 3D sensor simulations
- Charge transport and integration of simulation tools

Current categories (WG4 Research Goals-oriented)

- CMOS simulation and connection between device-level and electronics sim. (RG 4.1)
 - monolithic sensor simulations
 - front-end electronics simulations
 - signal read-out and processing
- Other detectors/technologies/activities
 - hybrid sensors (LGADs, 3D, strip detectors, ...)
 - process simulation
 - particle-matter interaction (GEANT4, FLUKA, ...)
 - charge carrier transport simulation
- Newly measured semiconductor properties (RG 4.2)
 - non-silicon sensors simulation
 - gain layer/impact ionisation simulation
- Radiation damage: validation with measurements and development of high-fluence models (surface and bulk) (RG 4.3 - 4.4)
 - definition of benchmark models
 - high-fluence models
 - radiation environment simulations
- Time dependent electric/weighting field (RG 4.5)
 - adaptive fields
 - signal formation in detectors with resistive electrodes
 - charge transport
- Simulation tool development
 - integration of simulation tools
 - machine learning

Dates of summer meetings

- Next meetings

- have **regular meetings** throughout the summer (19/8 - 2/9 - 16/9 - ...)

August							September						
M	T	W	T	F	S	S	M	T	W	T	F	S	S
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29

- **move** the next meetings **forward by one week** (26/8 - 9/9 - 23/9 ...)
- **skip** only the **next meeting** and restart bi-weekly from the 2nd of September
- ...