UPCOMING 5.0 VERSION

3D RADIATION SIMULATION

New physics: Hadronic physical processes

Modeling / Main interface

- Multi-threading for overlap detection
- Improvement of the invalid shape tool: detection & resolution
- Possibility to only upload & work on a part of a heavy model
- Improvement of the Material database to address all types of analysis
 (TID/TNID & internal charging)

Ray-Tracing

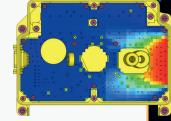
- Possibility to run and post-process the calculation with multiple environments (TID & TNID)
- Post-processing capability for mapping

Forward & Reverse Monte-Carlo

- Dose-depth curve tool: TID/TNID & incident current
- Tracking of heavy ions, neutrons, protons, electrons, photons

Internal Charging:

- Time-dependent charge deposition rate
- Time-dependent dielectric temperature and conductivity
- Dielectric capacitance at steady-state
- 3D cylindrical mesh for the charge deposition rate





MOON, MARS AND BEYOND

Upcoming 5.0 version

New physics: Hadronic physical processes in Forward Monte-Carlo

Radioprotection related outputs for crewed missions

Tracking of heavy ions, neutrons, protons, electrons, photons

Photo Credit: NASA - Crew Drad

H*(10) ICRP74; E(AP) ICRP116; E(ISO) ICRP116; H'(0.07,0°) ICRU57; Hp(3) ICRU57; Fluence; Total deposited energy rate; Total absorbed dose rate; Dose equivalent and many more...





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