

5.0 VERSION

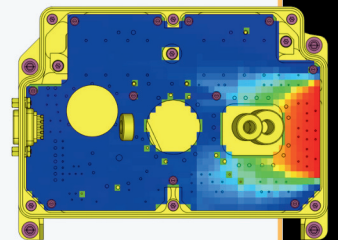
New physics: Hadronic physical processes

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

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

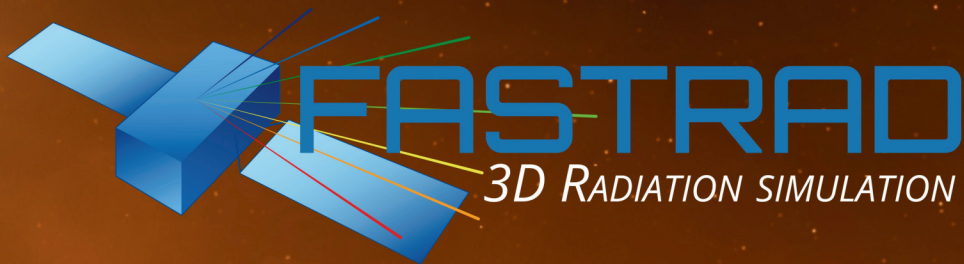


Internal Charging:

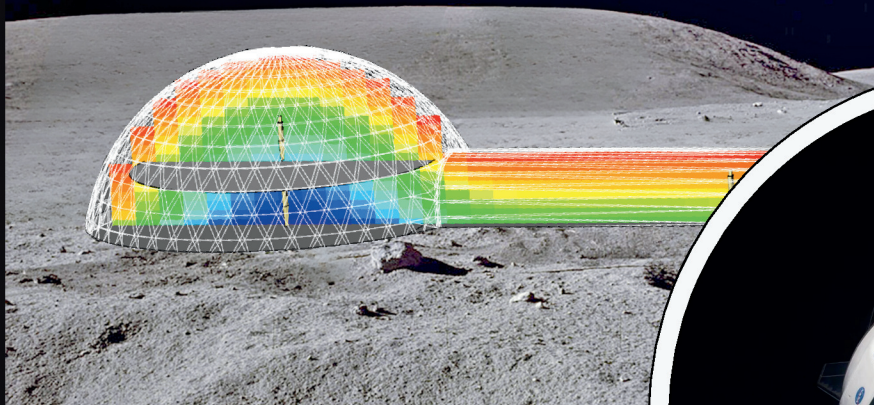
- **Time-dependent dielectric temperature and conductivity**
- Time-dependent charge deposition rate
- Dielectric capacitance at steady-state
- 3D cylindrical mesh for the charge deposition rate

SPACE EXPLORATION

with



5.0 version



✓ New physics: Hadronic physical processes in Forward Monte-Carlo

✓ Radiation Protection related outputs for crewed missions

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

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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