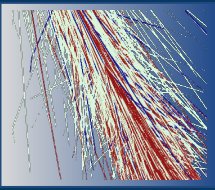
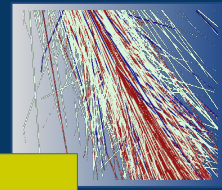


CORSIKA 8

Ralf Ulrich, 23.11.2021



- Welcome
- New contributors / collaborators
- Planning and priorities



Recent work, Roadmap

- First e.m. physics
- Magnetic fields
- New structure, build system
- New dependency management
- Fast logging



Slide from 11.2.2021
→ we are still on track

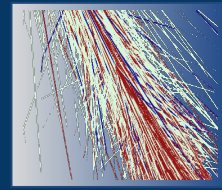
Today

- Output file generation
- Further work on e.m. / hadron / muon physics
- Radio emission
- Cherenkov emission
- Documentation



ICRC

First release (validation and testing)

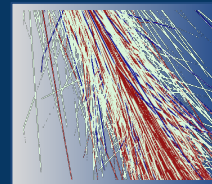


Next meetings

All meeting agendas collected at:
<https://indico.scc.kit.edu/category/28/>

- Next general phone call:
 - October 21th (4 weeks) → OK?
- Next topical phone calls (Thursdays 2:30 CEST):
 - Parallelization, in two week (to be announced)
 - E.M. showers, in three weeks (to be announced)

Ongoing MRs



[WIP] Radio interface

!329 · opened 6 months ago by Nikos Karastathis ⌚ Radio Emission Discussion Feature request



updated 1 day ago

Resolve "Develop Cherenkov emission module" 8 of 8 tasks completed

!333 · opened 6 months ago by Matthieu Carrere ⌚ First full release: CORSIKA 8.0.0 Comments requested Development Discussion Ready for code review



updated 2 days ago

add times to tracks.parquet

!386 · opened 3 days ago by André Schmidt Ready for code review



updated 2 days ago

make conex module fit for multiple events. Added init function

!385 · opened 3 weeks ago by Ralf Ulrich ⌚ Cascade Equations Ready for code review



updated 2 days ago

adding IGRF

!349 · opened 4 months ago by André Schmidt ⌚ First full release: CORSIKA 8.0.0 Media Ready for code review



updated 1 month ago

WIP: Additional outputs ported to new architecture

!371 · opened 3 months ago by Remy Prechelt ⌚ First full release: CORSIKA 8.0.0



updated 1 month ago

Potential update of LayeredSphericalAtmosphereBuilder

!383 · opened 2 months ago by Ralf Ulrich Discussion Limitation never merge



updated 2 months ago

WIP: Add helper functions to create US standard atmosphere.

!359 · opened 4 months ago by Remy Prechelt ⌚ First full release: CORSIKA 8.0.0



updated 2 months ago

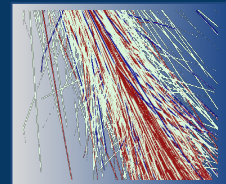
Draft: Adding a particle resolution.

!345 · opened 4 months ago by Maximilian Sackel ⌚ First full release: CORSIKA 8.0.0 Comments requested Development Discussion EM Ready for code review



updated 3 months ago

Ongoing discussions



Arithmetic Exception in urqmd

#448 · opened 25 minutes ago by Pranav Sampathkumar

updated 25 minutes ago



Hadronic interaction interface 2.0

#447 · opened 1 month ago by Felix Riehn

Development

Discussion

HadronCollisions

updated 1 day ago



Possibility to run conventional-only simulation

#446 · opened 1 month ago by Piotr Kalaczyński

updated 1 month ago



Implement thinning algorithms

#445 · opened 2 months ago by Ralf Ulrich

🕒 Full physics demonstrator

Development

updated 2 months ago



EPOS issues

#443 · opened 2 months ago by Ralf Ulrich

🕒 Full physics demonstrator

Bug

Discussion

HadronCollisions

updated 1 month ago



Support for external atmosphere model libraries

#442 · opened 2 months ago by Piotr Kalaczyński

updated 2 months ago

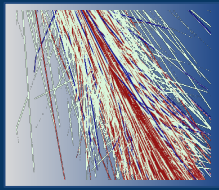


Follow-up from "Resolve "Need martian atmosphere model for ICRC"" 0 of 1 task completed

#441 · opened 3 months ago by Ralf Ulrich

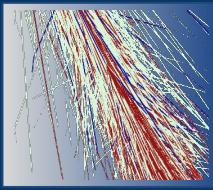
updated 3 months ago





Normal business: improvements and fixes

- Merge Radio
- Merge Cherenkov, work on atmospheres
- Finalize Output format
- Fix EPOS
- Interaction model interfaces
- Improvements and bug fixes
- Improve stability
 - single build step



Major, critical steps

- Better, more complete CI *CONOS*
to Bng → Unit Test (new) because it obviously was missing before
- Address template hell
better documentation, type checking(!), C++20 concepts (!)
- New continuous process interface
- Further modularize framework
- Particles and tracks
- Stack memory management