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## FLUKA

*Thursday, July 14, 2022 4:45 PM (45 minutes)*

The hadronic interaction models of FLUKA are briefly presented for both hN and hA interactions.

Examples for their (in)ability in reproducing particle single and double differential spectra from sub-GeV to TeV energies are presented. Some comments on coherent and incoherent hA elastic interactions will also put forward.

Some hints about FLUKA photo and ElectroMagneticDissociation interactions will also be presented, together with a few slides about the FLUKA (anti)neutrino-nucleus interaction model.

All previous topics will then discussed in the framework of possible extensions of the existing Corsika7-Fluka interface (which deals only with non-elastic hA interactions in Air).

Last but not least, some slides will be dedicated to treatment and interaction of low energy neutrons which is a completely different world in Fluka (and in all neutronics codes), again in view of possible interest for Corsika8.

A few slides showing past and present applications of FLUKA in astroparticle physics will also be available.

**Author:** FERRARI, Alfredo

**Presenter:** FERRARI, Alfredo

**Session Classification:** Hadronic Interaction Models