



Contribution ID: 802

Type: **Poster contribution**

Ultra-High Energy Air Shower Simulation without Thinning in CORSIKA

Thursday 30 July 2015 15:30 (1 hour)

Interpretation of EAS measurements strongly depends on detailed air shower simulations. One of the big limitations is the calculation time of Monte-Carlo programs like CORSIKA at very high energies. Thinning algorithm has been introduced in the past to reduce the computation time and disk space of the output at the price of the loss of small scale structures in simulated air showers. Thanks to the newly developed parallelization scheme and special tools to study multiple thinning level for a given shower on a limited disk space, it is now possible to compare thinned and unthinned simulation of a single shower to quantify these losses. Preliminary results will be presented together with the details of the last release of CORSIKA.

Collaboration

– not specified –

Registration number following "ICRC2015-I"

32

Author: Dr PIEROG, Tanguy (KIT)**Co-authors:** Dr HECK, Dieter (KIT, IKP); DOROFEEVA, Elizaveta (SCC); POGHOSYAN, Gevorg (SCC); OEHLSCHLAEGER, Juergen (KIT, IKP); ENGEL, Ralph Richard (KIT - Karlsruhe Institute of Technology (DE))**Presenter:** Dr PIEROG, Tanguy (KIT)**Session Classification:** Poster 1 CR**Track Classification:** CR-TH