TOWARDS A FULL AND REALISTIC SIMULATION FRAMEWORK FOR THE EXTREME ENERGY EVENTS EXPERIMENT

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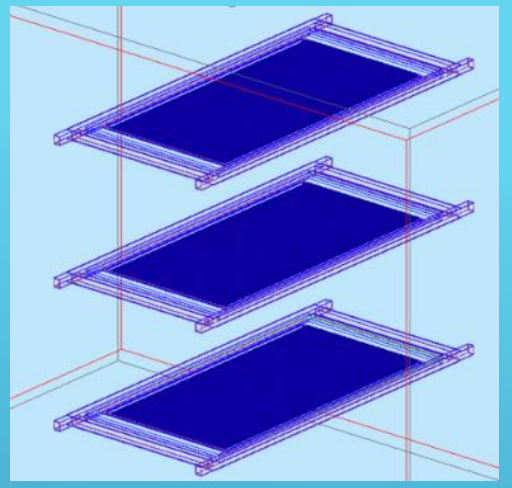
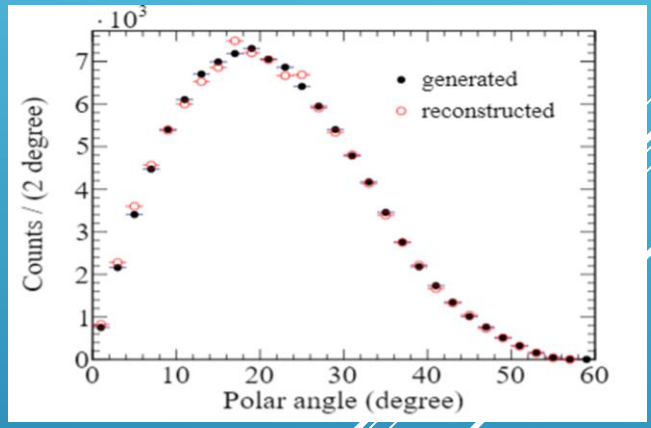
SIMULATION FRAMEWORK

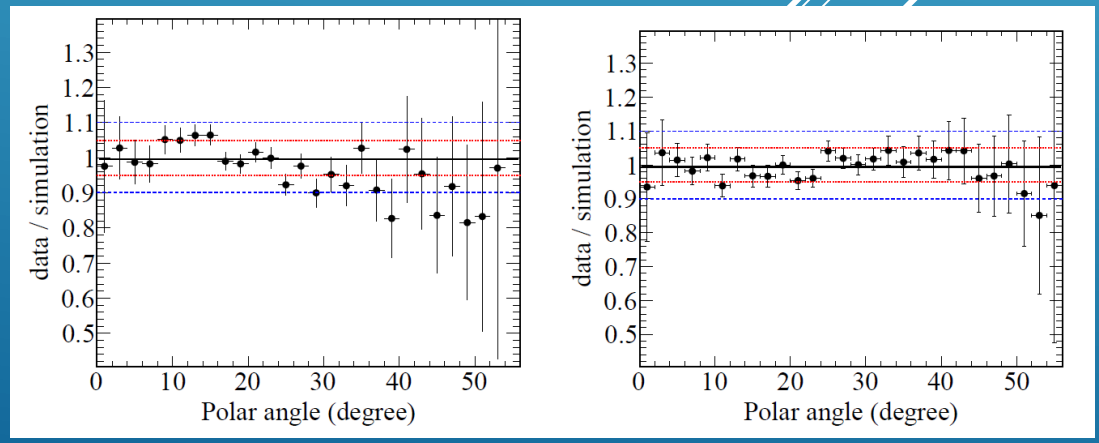
- Geant4-Based Simulation Framework
  - Better understand and predict the behavior of EEE Telescope detecting cosmic muons
  - MRPC Telescope geometry and Surrounding Materials are implemented
  - MRPC response was parametrized based upon the measured performance of the chambers





- Simulation framework validation
  - Comparison b/w data and simulation
  - Good agreement of angular distributions

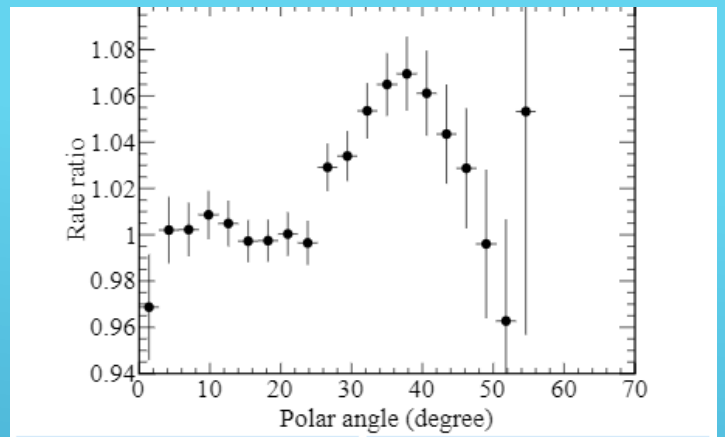
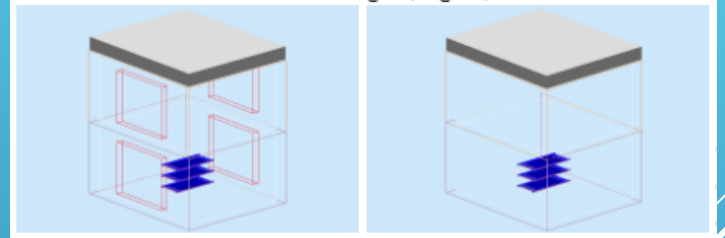
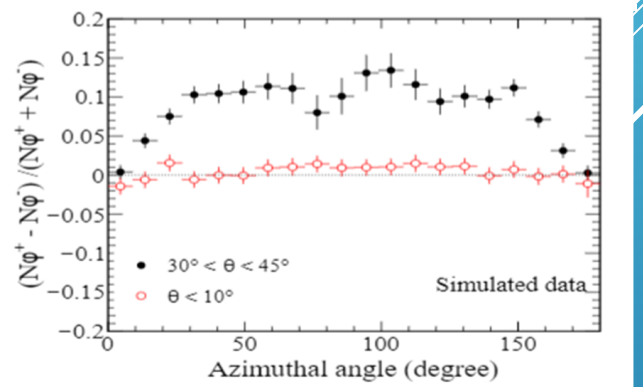
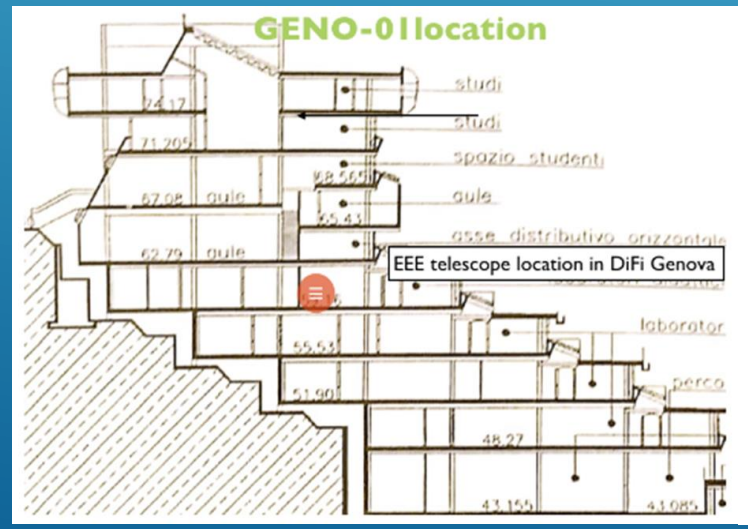
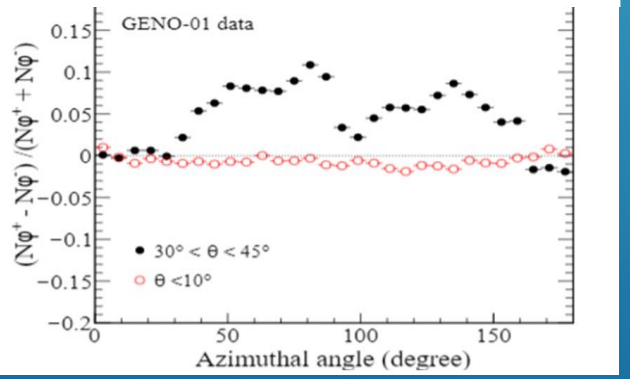
and other reconstructed quantities



SIMULATION FRAMEWORK

Conclusion

- EEE simulation framework is a valuable tool to study the detector performance
- Investigate new opportunities
  - Cosmic muons for building tomography & stabilities
- First step towards a full simulation framework

Future

- Integrate CORSIKA event generator for simulation of air shower