





Our primary interest:

CORSIKA as a tool for ground-based gamma-ray astronomy





See www.swgo.org

1 TeV gamma CORSIKA Simulation



Our primary interest:

CORSIKA as a tool for ground-based gamma-ray astronomy









"The Legacy of Michael Hillas in Air Shower Simulations" https://www.mpi-hd.mpg.de/hillas2018/slides/Hillas2018\_04\_Knapp.pdf

## **CORSIKA** in Heidelberg

Cherenkov Photons from Gamma-ray Shower (Konrad Bernlöhr)

- Development of CORSIKA as a tool for ground-based gamma-ray astronomy, in particular in the context of CTA and SWGO
  - + Cherenkov (and Fluorescence) light production and propagation (**Bernlöhr**)
  - + Shower particles at mountain altitudes
- Hadronic interactions / event generators
  - + Understanding (low energy) differences
    - + Talk this workshop **Álvaro Pastor Gutiérrez**
    - + also Harm Schoorlemmer, and formerly Dan Parsons
  - + Consistency with existing and future accelerator data
    - + Michael Schmelling and formerly Hans Deminski, LHCb

+ On the critical path for measurements of the cosmic ray electrons and diffuse gamma-ray emission at TeV energies



+In Div. Lindner: Oliver Fischer, BSM Physics using CR showers



**MPIK** 

• Hoping to welcome you to Heidelberg for the CORSIKA Workshop of Spring/Summer 2021!



