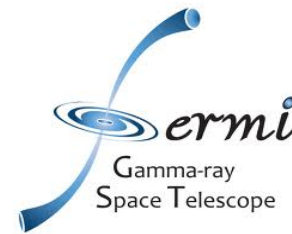


Joint Fermi and H.E.S.S. Analysis.

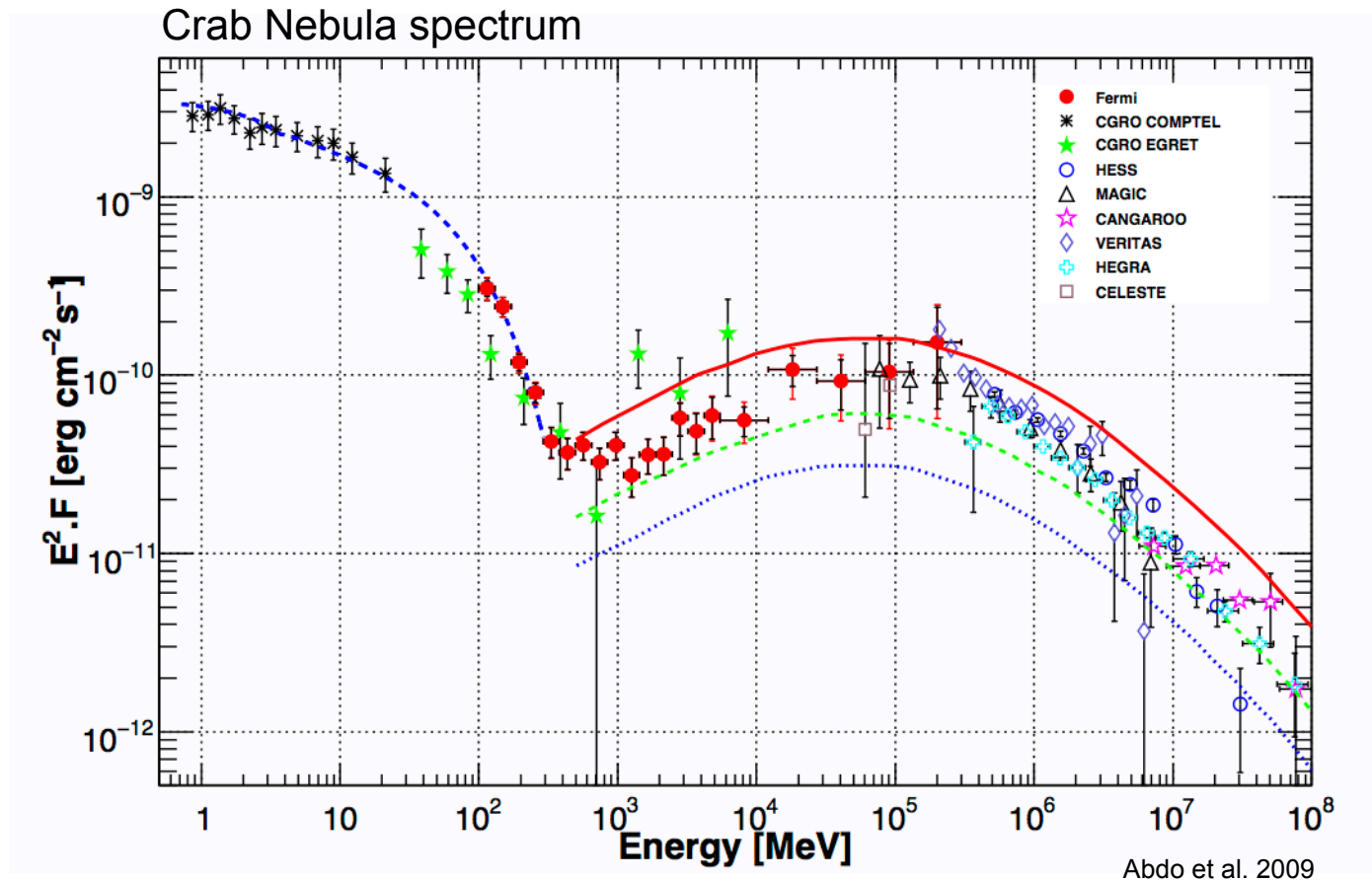
with ctools

Anneli Schulz, Michael Mayer,
Stefan Klepser, Markus Ackermann
Rome, 23.10.2012

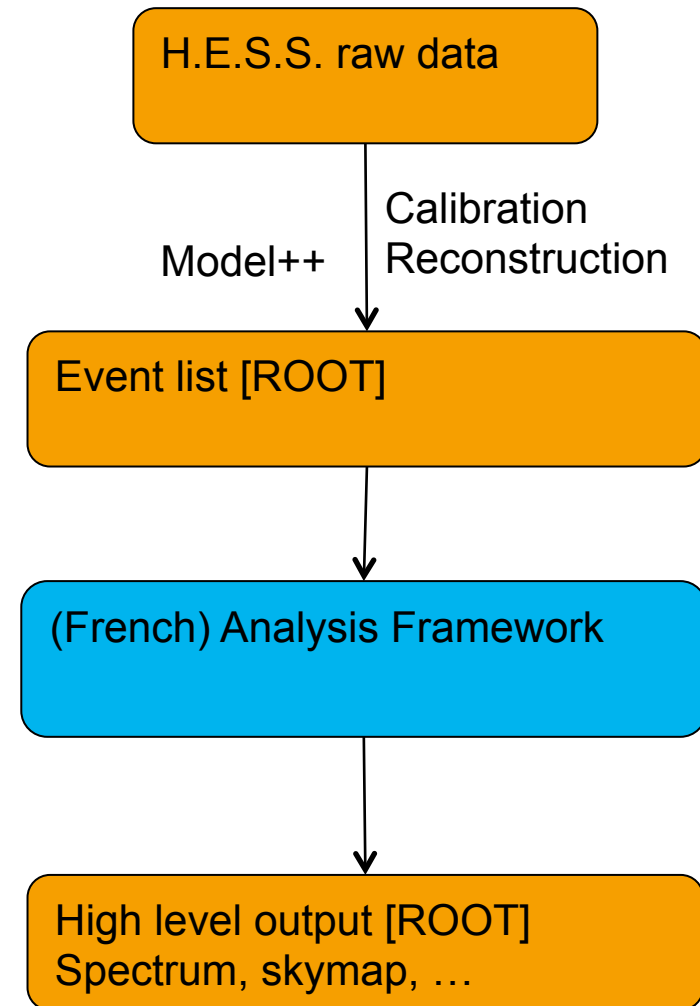
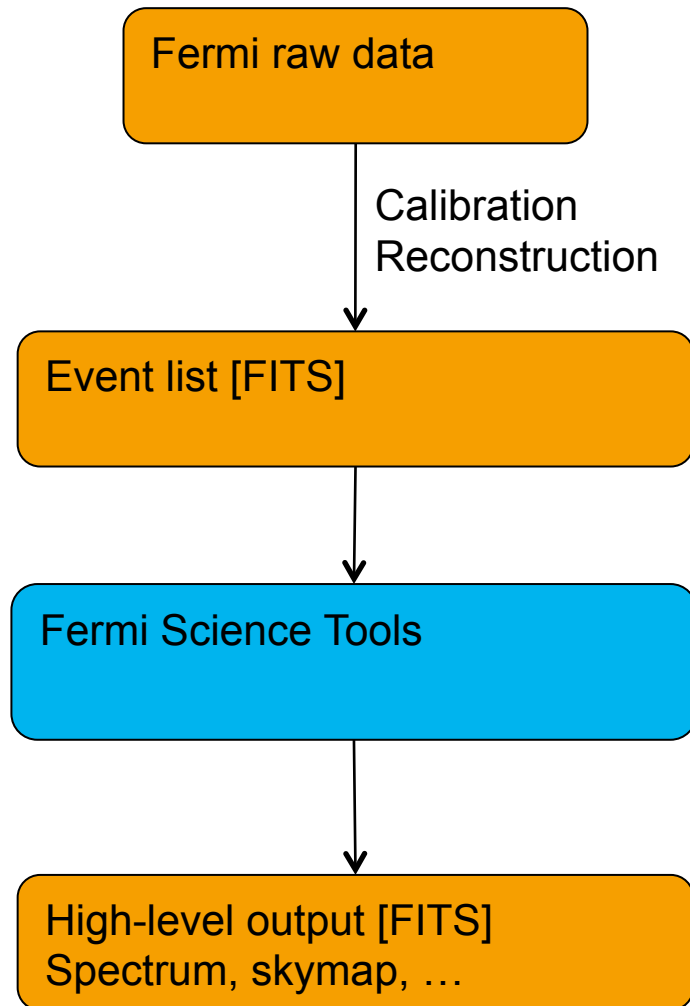


Motivation for combined analysis framework

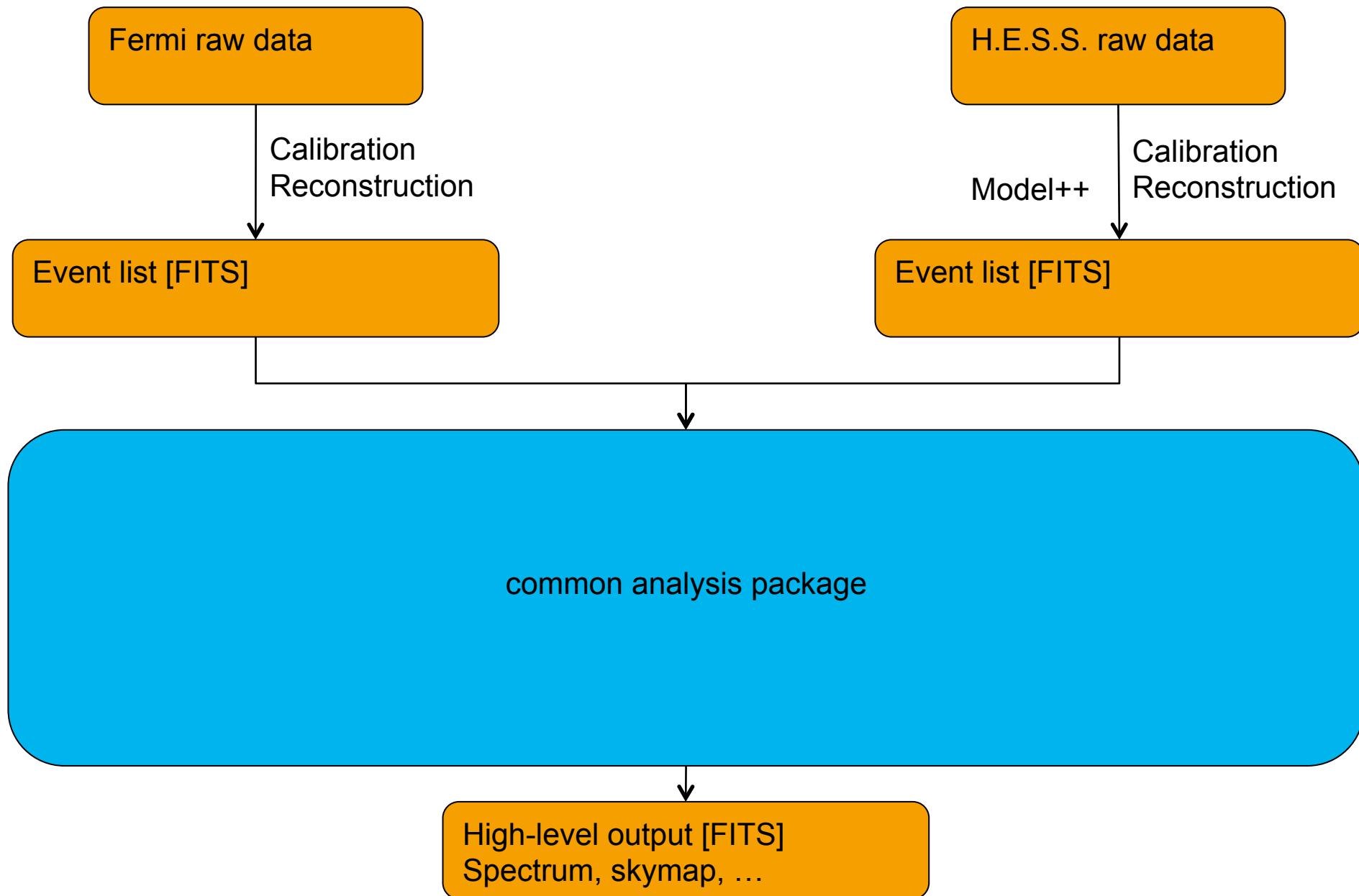
- Study of spectral energy distribution over large energy range
- Cross-calibration of the instruments



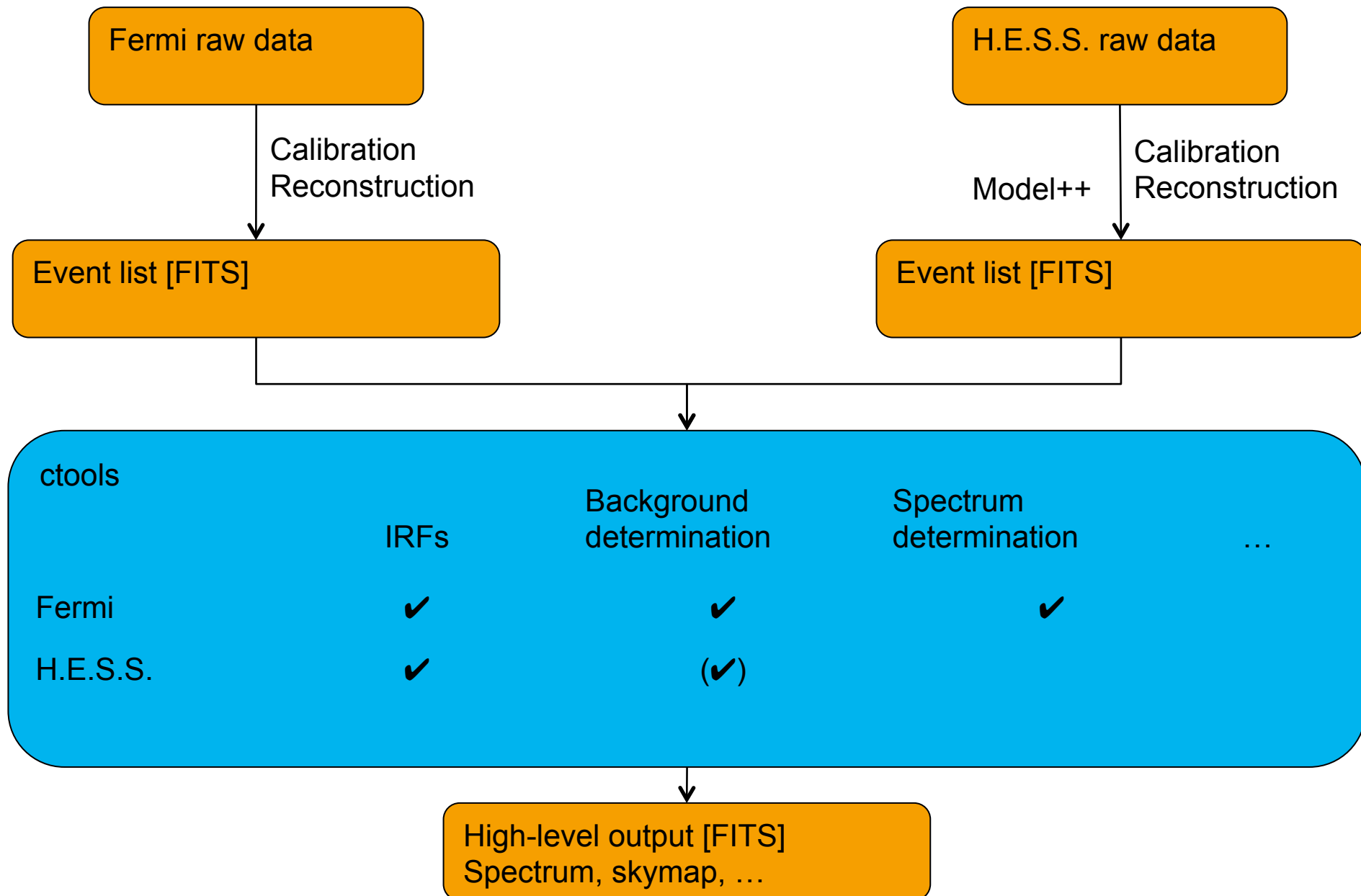
Analysis framework



Analysis framework

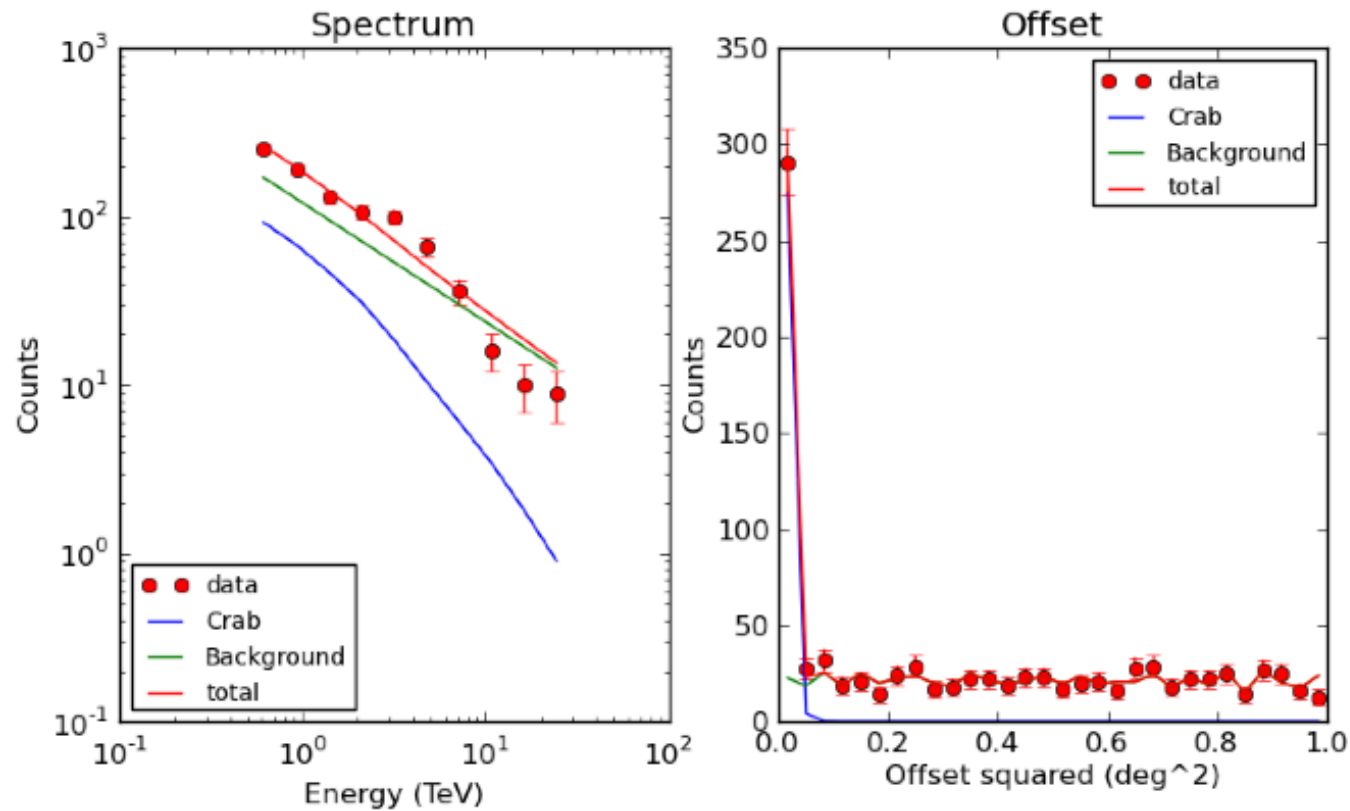


Analysis framework



H.E.S.S. crab data in ctools

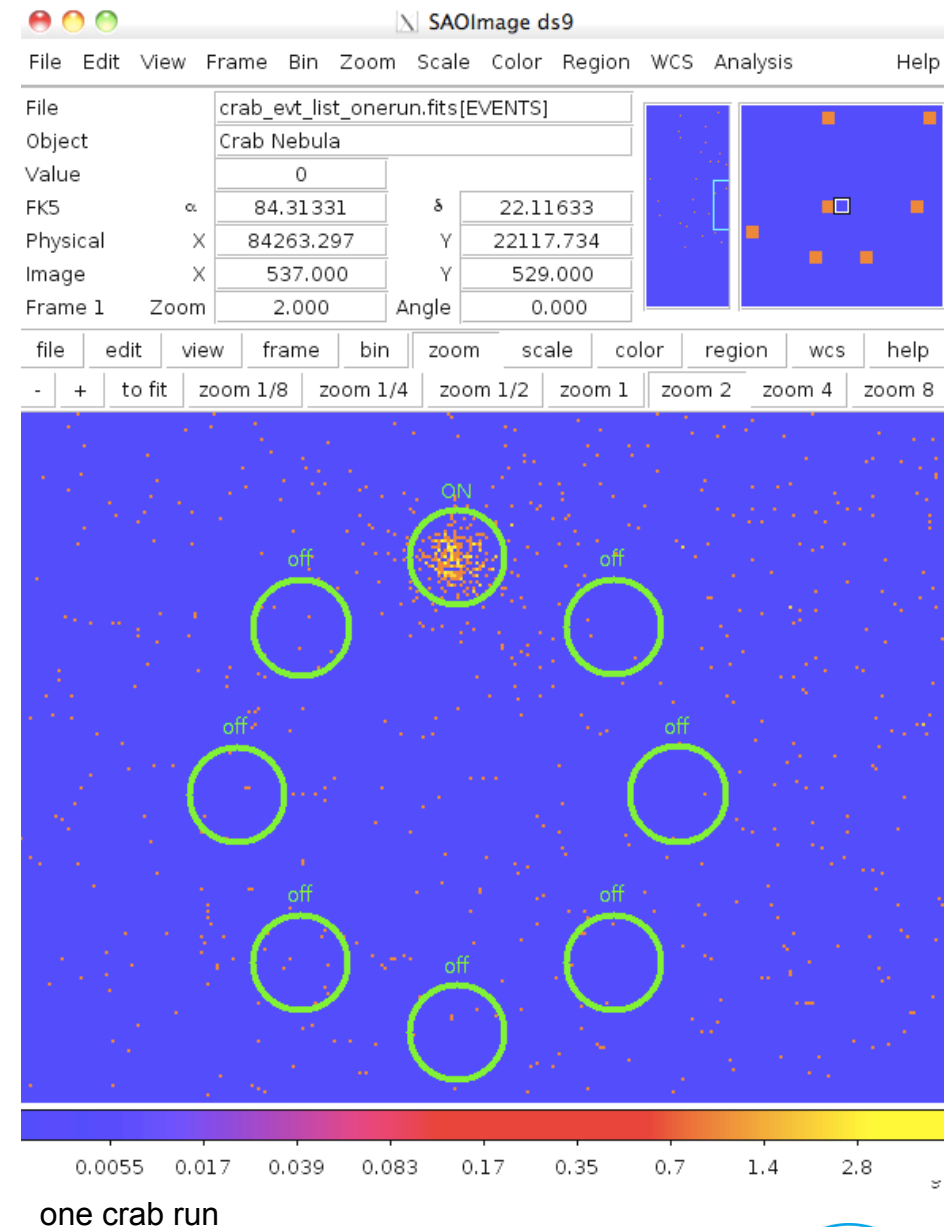
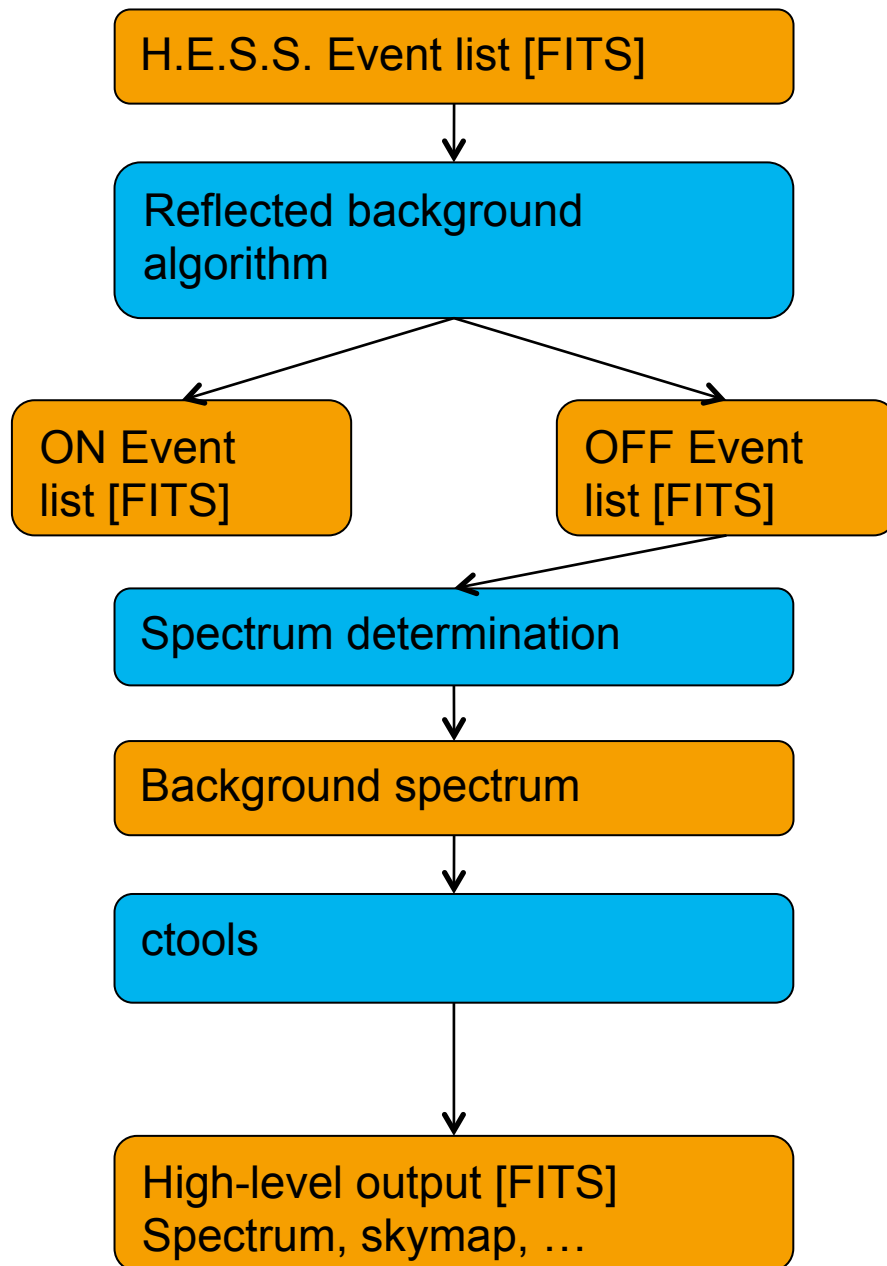
with Fermi-like background determination



J.Knödelseder,
AS

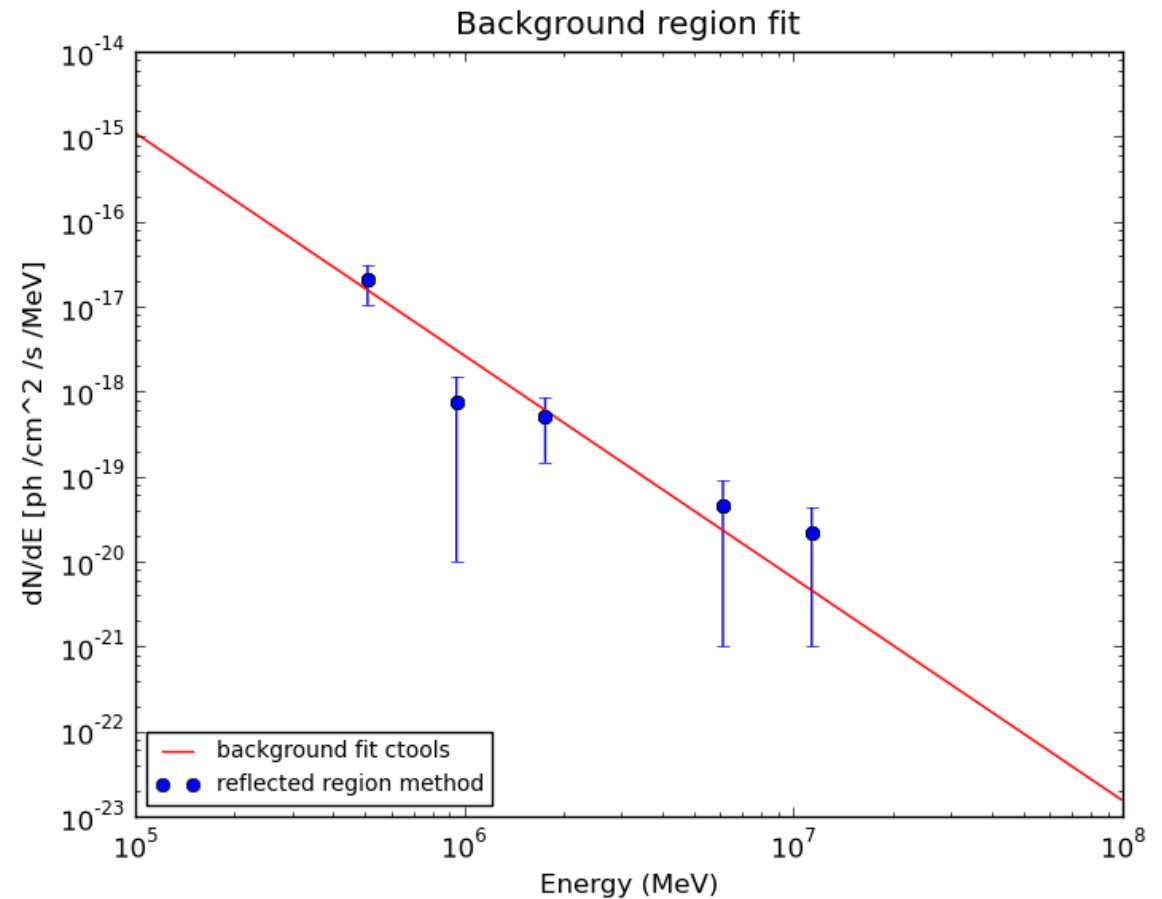


Determination of the background - H.E.S.S.

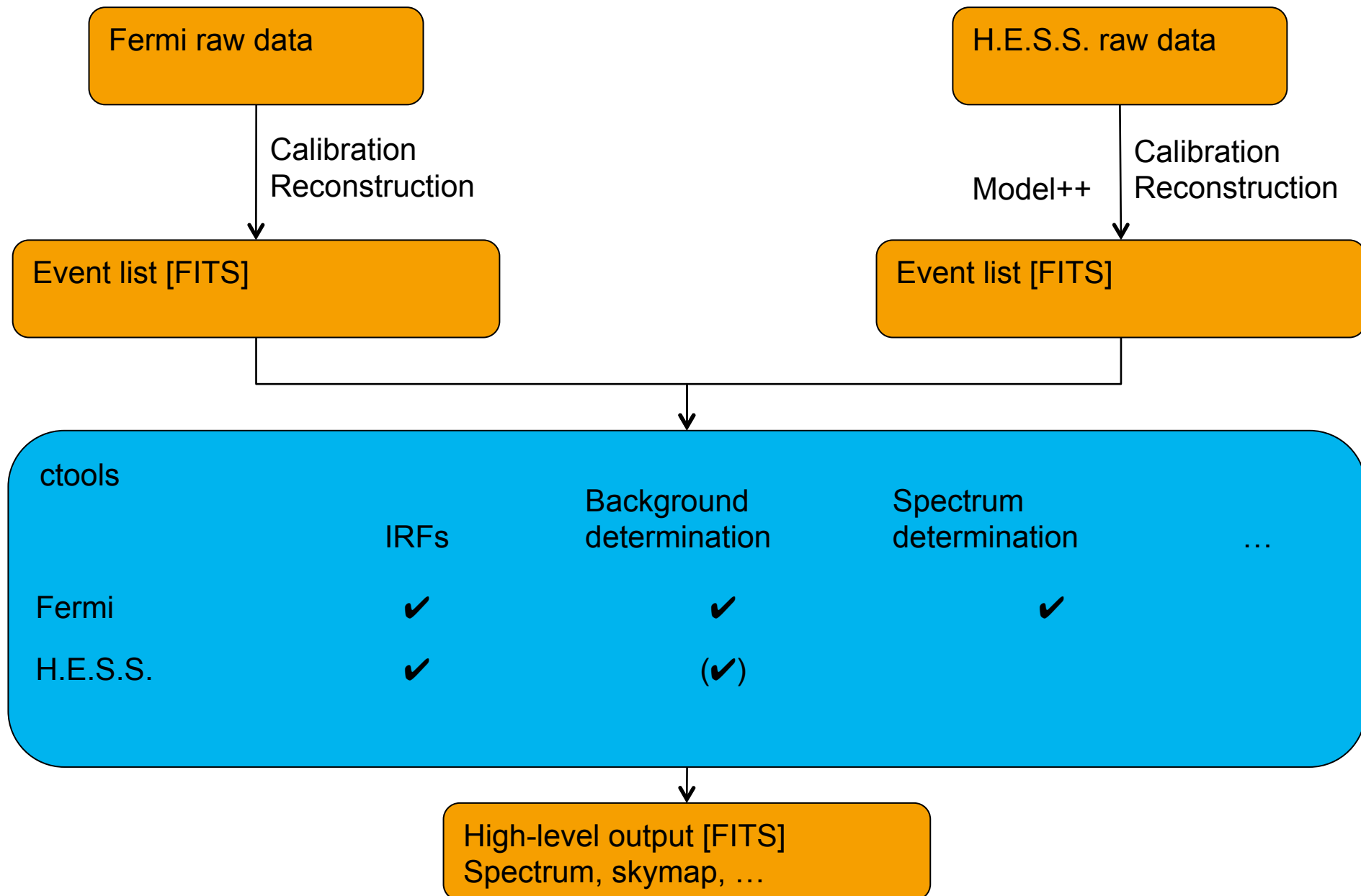


Cross-check of background determination algorithms

- H.E.S.S. data from background region only
- Comparison of reflected region method and ctools

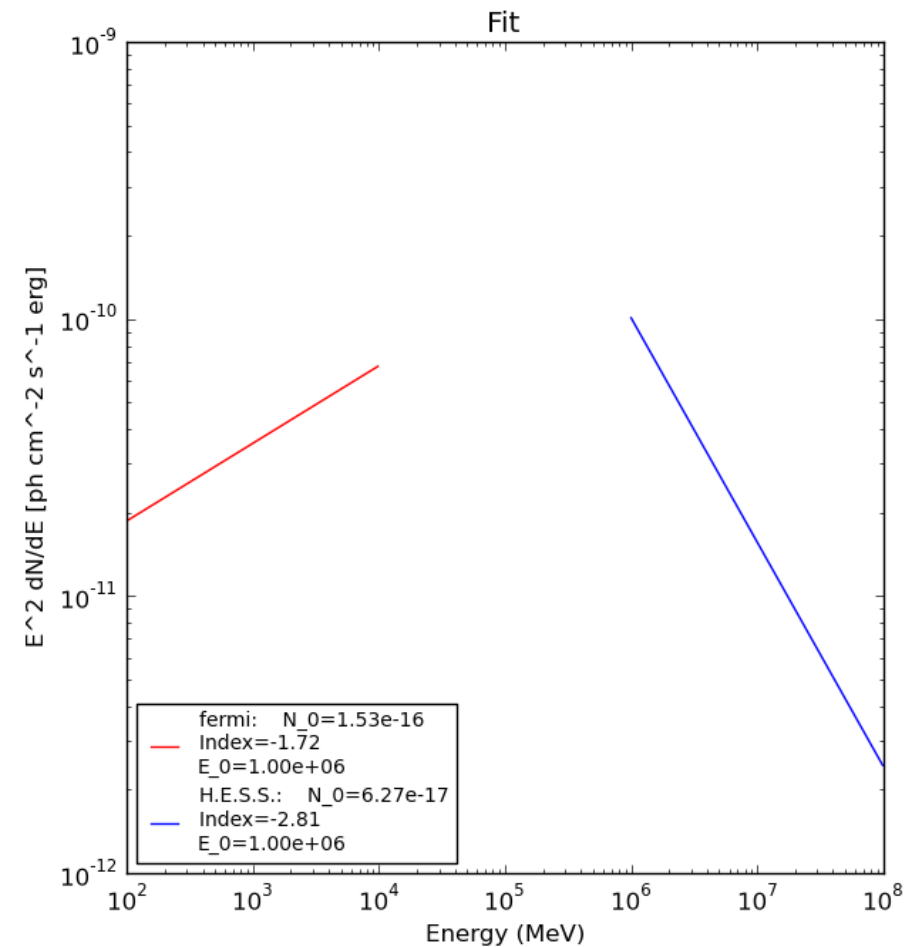
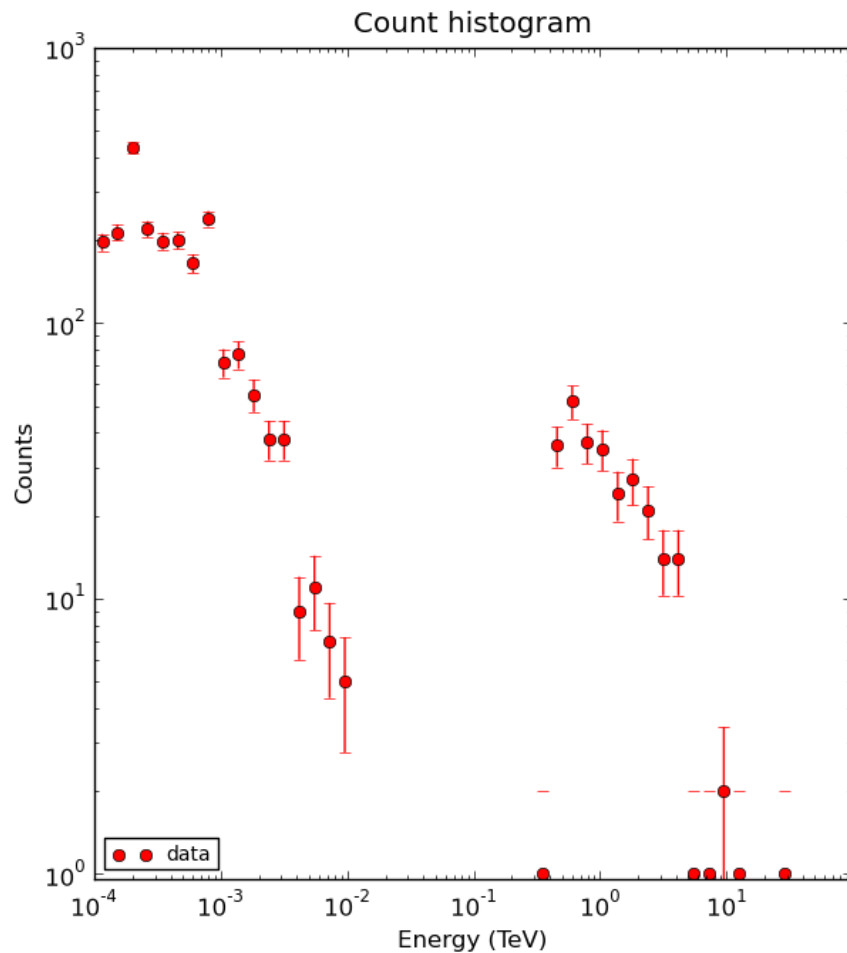


Analysis framework



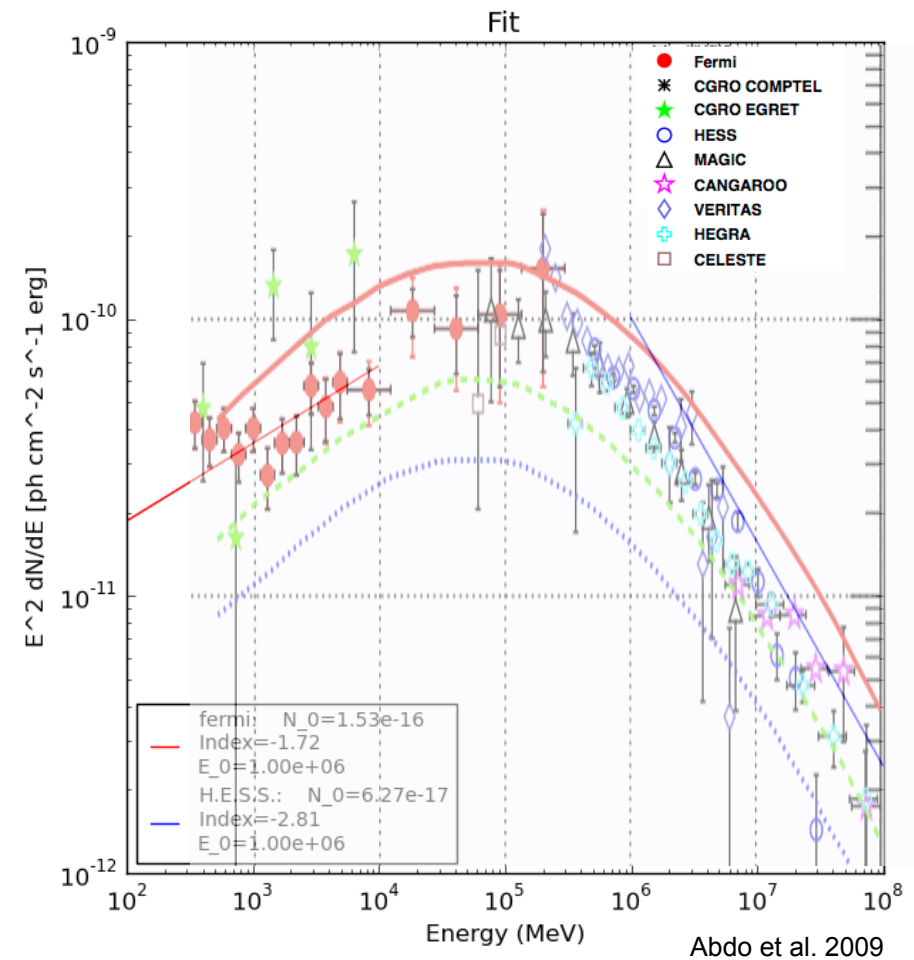
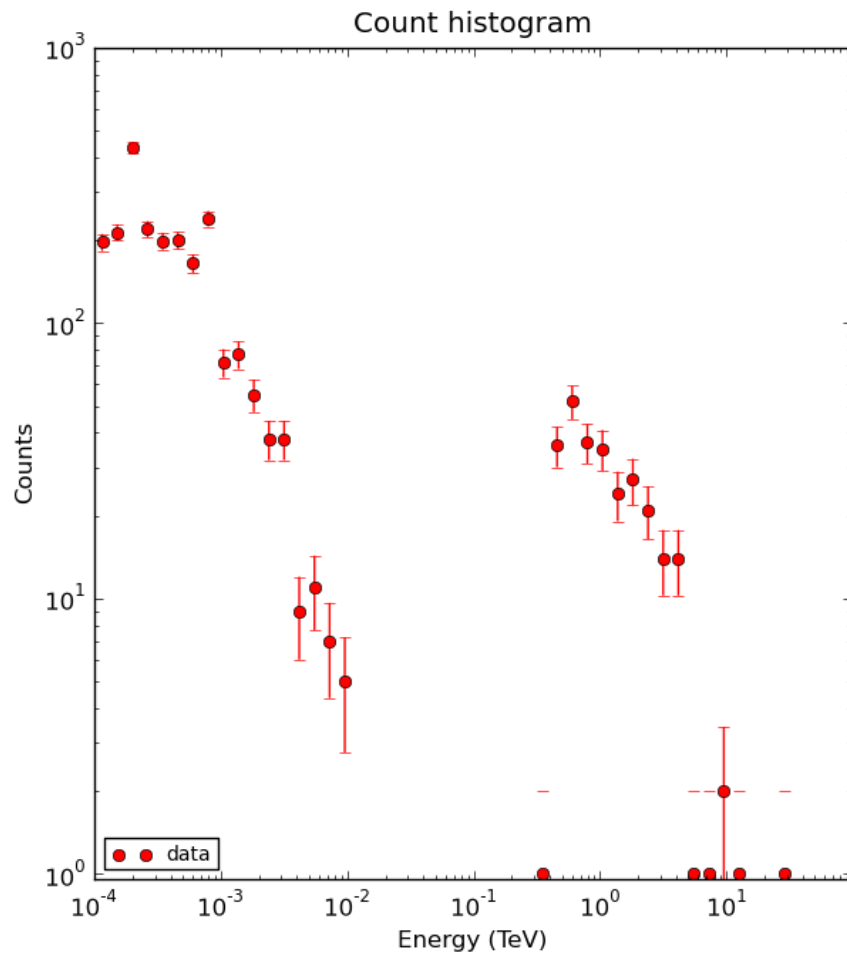
Analyzing Fermi and H.E.S.S. data: Crab nebula

- Fit not (yet) simultaneous, only power law possible



Analyzing Fermi and H.E.S.S. data: Crab nebula

➤ Fit not (yet) simultaneous, only power law possible



Summary and next steps

- > Common analysis of Fermi and H.E.S.S. data using ctools
 - > Fermi analysis implemented, further testing
 - > Basic H.E.S.S. analysis working
 - > Evaluation of background determination algorithms
-
- > Testing of ctools
 - > Implementation of further methods, e.g. spectral shapes
 - > Development of background determination algorithms



