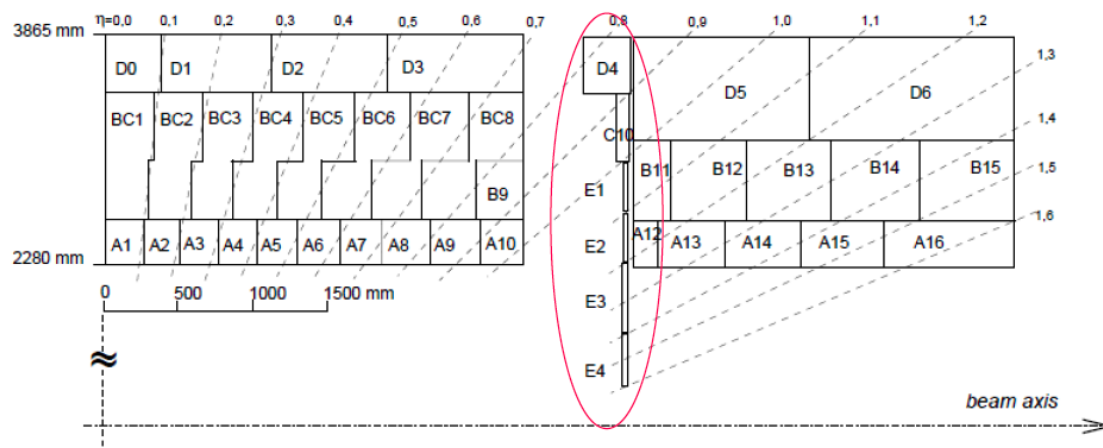


TileGapCells

Jet signatures in ATLAS are reconstructed by running of a clustering algorithm that uses cells grouped in "towers" or "topological clusters" as input.

Towers are built by projecting all 200,000 calorimeter cells onto a fixed grid in the pseudo-rapidity and phi plane. The transition region between the central barrel and the endcap ATLAS calorimeter is equipped with especial "TileGap" scintillator detectors designed to derive specific corrections to the measured jet energy (cells labeled E1-E4 as in the following figure)



The purpose of this project is to understand the effect of TileGap cells on jet reconstruction, and to study the impact of these cells on jet energy calibration.