The physics goals of future lepton colliders ask for a very precise measurement of the jet energy. Highly granular calorimeters will play an important part in achieving this high precision as they allow the application of Particle Flow Algorithms. These calorimeters are being developed by the CALICE collaboration and several prototypes have already been build and tested.

The optimization of PFA is supported best if hadronic interactions are well modeled in Monte Carlo simulations. The development and improvement of such hadronic shower models relies on detailed reference data which these prototypes can provide.

We have studied interactions of negatively charged pions in the highly granular CALICE silicon-tungsten electromagnetic calorimeter (Si-W ECAL) prototype in the energy range of 2 to 10 GeV and compared various global hadronic shower observables to different Monte Carlo models in the simulation toolkit Geant4.
The Si-W ECAL is very sensitive to the start of the hadronic shower and we have developed an algorithm optimised to find interactions at small hadron energies and can identify the interaction point with an accuracy of ± 2 layers at an efficiency of at least 50% at 2 GeV and at least 80% at 10 GeV.

The efficient detection of the shower starting point and shape will improve the performance of Particle Flow Algorithms. The algorithms aim to reconstruct each particle in the optimal subdetector and therefore gain in performance with an improved shower recognition and separation. We are applying advanced machine learning algorithms to improve the detection and separation efficiency.