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Particle Flow Calorimetry for a future Linear Collider

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Summary

The ambitious goals of a future linear collider experiment for high-energy particle physics require new detector concepts that achieve unprecedented measurement precision. One concept to improve the particle and jet energy resolution beyond classical calorimetry are Particle Flow Algorithms (PFAs), which aim to include the momentum measurement of the innermost tracking system into the energy measurement of the calorimeter. For a proper association of tracking and calorimeter information, calorimeter systems with very high spatial granularity are needed. The CALICE collaboration develops and validates different approaches of building such calorimeters. This talk will present the concept of Particle Flow Algorithms and give an overview and current status of the DESY activities in calorimeter development.

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Session Classification: Experimental Particle Physics