International Workshop on Future Linear Colliders, LCWS2024



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Fast Timing for Particle ID

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The identification of certain charged hadron species, e.g. Kaons and protons, plays an important role in many physics analyses. Time-of-flight measurements can contribute to identifying these particles if both the length of the flight path as well as the time of arrival can be determined with sufficient precision. This contribution will discuss the recent progress on both aspects, and in particular compare classic as well as machine-learning based algorithms in order to estimate the time-of-arrival at the calorimeter front from the time measurements of individual hits in a shower or MIP trace.

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