FLASH-ALGORITHM FOR HELIX FIT

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Helix fits are of primordial importance for track reconstruction in particle detectors. For certain online applications speed is critical. We present a flash-algorithm helix fit with a latency the order of 300 ns, which is more than twice as fast as the Stratix-10 FPGA solution developed for the ATLAS HTT in trig.LVL1. The fit expects "xyz"-hits and uses a third order helix approximation. The code will be made available in JINRLIB.