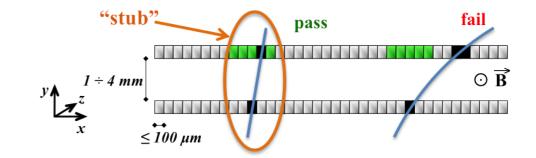# Level-1 Track Finding at CMS for the HL-LHC

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- L1 tracking critical to achieve required event rate reductions for CMS at HL-LHC
  ‣ Based on concept of double-sided p_T modules

- FPGA-based system provides full-detector tracking at 40 MHz with 4 µs latency
  ‣ Extensive parallel processing in space+time to tackle combinatorial challenge

- _Hybrid algorithm_ combines road-search tracklet algorithm with Kalman Filter fit
  ‣ Exploring "extended" (displaced) tracking to identify tracks due to long-lived particles
  ‣ Working toward specifications of final system & next-level hardware demonstrators