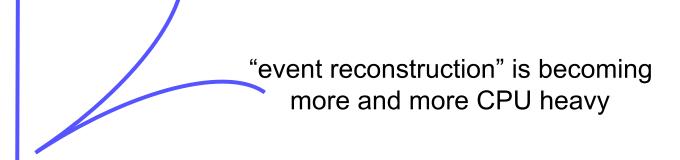# Bifurcation of Application needs drive new paradigms & architectures

IO

Smaller event formats produced more often, I/O scheduling, giving up on flexibility of data formats

"event filtering" & final stages of analysis is becoming more and more IO heavy

"event reconstruction" is becoming more and more CPU heavy

CPU

LHC Science requires more than just centralized simulation & reconstruction

Cost-conscious detector design, redesign algorithms to best exploit silicon we buy

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WLCG February 2016