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A pascalian later drift detector

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The necessity for detectors with improved spatial resolution drives many silicon detector R&D projects towards small pitch sizes in various areas of research. However, the evolutionary approach of reduced pitch size increases the number of channels and thus needed bandwidth for detector read-out. A new detector concept, a Pascalian later drift detector (pLAD), exemplifying a strategy for high precision silicon sensors is introduced in this talk that avoids the small pitch dogma and decouples the sensor resolution from the pitch size.
The scheme of this new technology is introduced and simulation results are presented exemplifying the feasibility of the working principle.

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