

Connecting The Dots / Intelligent Trackers 2017



Monday, 6 March 2017 - Thursday, 9 March 2017

LAL-Orsay

Scientific Programme

0 : Algorithms and theoretical analysis

Mathematical evaluation of pattern recognition problems, fitting, effect of noises,...

1: Parallel and discrete pattern recognition

Hough transform approaches, look-up tables, associative memory,...

2 : Machine learning approaches

Software and firmware implementations, exploration of neuromorphic hardware

3 : Performance evaluation

Examples of implemented pattern recognition problems and solutions with emphasis on new challenges and limits of scaling existing approaches

4 : Intelligent tracking detectors

Detectors providing more than evenly spaced 2D or 3D points

5 : Coupled sensors and other architectures

Design for trackers that measure angle, or other primary

6 : Timing measurement

Measurements at tens ps level, and the use of it in tracking.

7 : Electronic circuits

new Integrated Circuits for on-detector intelligence

8 : High speed communication

high bandwidth on-detector interface and fast readout

9 : Real Time Pattern Recognition

10 : Fitting tracks

Fitting tracks beyond classical Kalman filters

11 : Using tracks

Advanced algorithms to build high level information from tracks

12 : Special

Special sessions and non-HEP talks