

COST Action no. TD1401: Fast Advanced Scintillator Timing

FAST

November 2014 – November 2018

General objectives

- Bridge the gap between sectors, countries and research fields
- Investigate transient phenomena
- Conceive novel techniques towards high time resolution below 100 ps
- Provide a common platform for designing the fastest photodetectors and Application Specific Integrated Circuits (ASICs)

WG 1: Physics, Specifications & Supervision

- Model and optimize detecting chains
 - Design the roadmap for coincidence timing resolution towards 10 ps
 - Establish interaction between working groups (WG)
- Leaders: Paul Lecoq & Dennis Schaart

WG 2: Scintillators

- Define and understand key scintillator parameters for best timing
 - Study the response time limits of inorganic scintillators
 - Develop novel ideas or exploit new properties of materials for the best possible timing resolution
 - Explore the light producing modes prior to standard light generation
 - Investigate the mechanical & structural properties of scintillators
- Leaders: Martin Nikl & Christophe Dujardin

WG 3: Photodetectors

- Pursue the key parameters of photodetectors for best timing
 - Investigate and evaluate the timing of different detector technologies
 - Cooperate with industry to reassure feasibility of ideas and methods
- Leaders: Claudio Piemonte & Eduardo Charbon

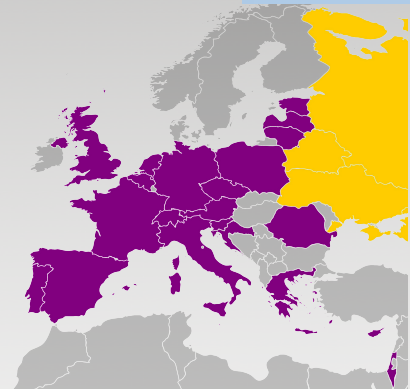
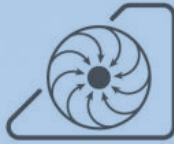
WG 4: Electronics

- Understand key parameters and microelectronics technologies required for time precision better than 10 picoseconds
 - Design novel ASICs based on proposed specifications of the Action
 - Organize common Multi Project Wafer productions
 - Coordinate joint characterisation of prototype devices
- Leaders: Joaõ Varela & Christian Morel

WG 5: Applications

- Identify target applications in different scientific domains
 - Discuss & evaluate requirements of end users with respect to timing
- Leaders: Pedro Almeida & Stefaan Tavernier

Trans-Domain
COST Action



Contact details

Chair of the Action

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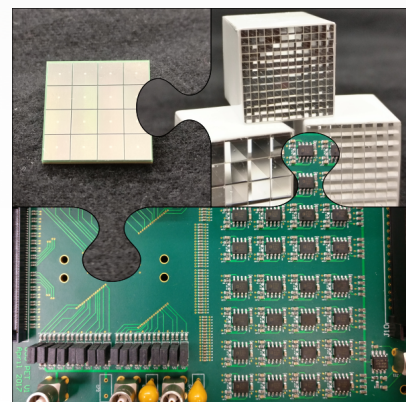
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