

Session Program

25-29 May 2026

**25th IEEE Real Time Conference - La Biodola,
Elba, Italy**

***Front-End Electronics, Fast Digitizers, Fast
Transfer Links & Networks***

La Biodola - Isola d'Elba (Italy)

Tuesday 26 May

09:10

Front-End Electronics, Fast Digitizers, Fast Transfer Links & Networks

Session | **Location:** Hotel Hermitage, Maria Luisa Room

09:10–09:30 **The front end electronics of the Hyper Kamiokande far detector**

Speaker

Jacopo Pinzino

09:30–09:50

Early Statistical Estimation for Data Rate Optimization in Dark-Count-Limited Detectors Using Fully-Analog Processing

Speaker

Jara García Barrena

09:50–10:10

Multi-phase processing Framework for Real-Time DAQ at Multi-GSPS Sampling Rates in Sci-Compiler

Speaker

abba andrea

10:10

15:00

Front-End Electronics, Fast Digitizers, Fast Transfer Links & Networks

Session | **Location:** Hotel Hermitage, Maria Luisa Room | **Conveners:** Elena Pedreschi, Marco Francesconi

15:00–15:20

An OS-based Software Architecture for reliable front-end data readout in the Hyper-Kamiokande Experiment

Speaker

Alejandro Gómez Gambín

15:20–15:40

Cost-effective and competitive alternative to the ITER Time Communication Network for accurate time synchronization

Speaker

Luca Trevisan

15:40–16:00

TRISK-J: a novel integrated front-end with edge computing capabilities for NEXT Experiment

Speaker

Vicente Herrero-Bosch

16:00–16:20

A High-Bandwidth, High-Framerate Integrated Ionizing Particle Detection System

Speaker

Carl Grace

16:20

Friday 29 May

09:00

Front-End Electronics, Fast Digitizers, Fast Transfer Links & Networks

Session | **Location:** Hotel Hermitage, Maria Luisa Room | **Convener:** Carl Grace

09:00–09:20

Development of a Cost-Efficient 64-Channel Multi-Phase Clock TDC on an Artix-7 FPGA

Speaker

Hidetada Baba

09:20–09:40

Machine-Learning-Based Waveform Discrimination in the Front-End Electronics of the Belle II Central Drift Chamber for Cross-Talk Noise Reduction

Speaker

Prof. Yun-Tsung Lai

09:40–10:00

An all-in-one front-end board for the streaming readout of gaseous detectors used in experimental physics

Speaker

Lakmin Wickremasinghe

10:00