

# 21st IEEE Real Time Conference - Colonial Williamsburg



**Saturday 9 June 2018 - Friday 15 June 2018**

**Woodlands Conference Center**

## Conference Topics

## **Emerging Technologies**

Hardware, software, tools, and techniques

## **New Standards**

Standard such as ACTA/ $\mu$ TCA

## **Data Acquisition**

Readout data paths and system architectures as well as conceptual design for future instruments (machines and detectors)

## **Real Time Safety and Security**

For small and large instruments

## **Upgrades**

Improvement or expansion of existing large and small systems.

## **Feedback on Experiences**

A discussion of development or implementation of a system with a focus on the unexpected problems and lessons learned along the way.

## **Control, Monitoring, Test and Real Time Diagnostics Systems**

For small and large instruments.

## **Trigger Systems**

As applied to the physical sciences.

## **Real Time System Architectures and Intelligent Signal Processing**

Includes system architectures dealing with realtime data acquisition, extraction, compression, intelligent signal processing and storage applied to the physical sciences.

## **Fast Data Transfer Links and Networks**

Includes every data transfer protocol from local data transfer up to global fast networks with their associated hardware (routers, switches, etc.)

## **Front End Electronics and Fast Digitizers**

Ultra-fast ADCs, TDCs and Switched Capacitor Arrays in the GHz range and their applications.

## **Processing Farms**

Processing farms for high level trigger and online selection.

## **Real Time Simulation**

Simulation of real time DAQ