### **Session Program**

9-15 Jun 2018



### 21st IEEE Real Time Conference - Colonial Williamsburg

### Poster 1

Woodlands Conference Center 159 Visitor Center Dr, Williamsburg, VA 23185

### **Tuesday 12 June**

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**Poster 1** 

**Poster Session** | **Location:** Woodlands Conference Center, 159 Visitor Center Dr, Williamsburg, VA 23185 | **Convener:** Martin Grossmann

#### I2C management based on IPbus

#### Speaker

Mr Hongwei Yu

### High-speed RF Switch Electronics for picking up of Electron-Positron Beam Bunches

Speaker

Liujiang Yan

#### High-power Piezoelectric Tuner Driver for Lorentz Force Compensation

**Speaker** Dr Dariusz Makowski

## High loaded quality factor superconducting cavities accelerating field parameters regulation during continuous wave operation

**Speaker** Wojciech Cichalewski

#### The operational and control software of Multi-channel Antarctic Solar Telescope

**Speaker** Mr Yi Feng

#### Fixed latency fiber communication for JLAB's Hall B RICH detector

**Speaker** Mr Cody Dickover

### Progress on the Electromagnetic Calorimeter Trigger Simulation at the Belle II Experiment

Speaker Insoo Lee

### First large-scale real-time drift compensation for Low-Level-RF-stations at the European XFEL

Speaker

Krzysztof Czuba

#### Radiation-Tolerant, High-speed Serial Link Design with SRAM-based FPGAs

Speaker

Sabrina Perrella

# FPGA acceleration of Model Predictive Control for ITER Plasma current and shape control

Speaker Dr Samo Gerksic

# Real-Time Betatron Tune Correction with the Precise Measurement of Magnet Current

Speaker

Yoshinori Kurimoto

# FPGA IMPLEMENTATION OF RDMA-BASED DATA ACQUISITION SYSTEM OVER 100 GBE

Speaker

Wassim Mansour

#### Real time data analysis with the ATLAS trigger at the LHC in Run-2

Speaker

Pierre-Hugues Beauchemin

### FLIT-level Infiniband network simulations of the DAQ system of the LHCb experiment for Run-3

Speaker

Flavio Pisani

#### Real-time Data Acquisition and Processing System for MHz Repetition Rate Image Sensors

**Speaker** Mr Aleksander Mielczarek

#### **Environmental Monitoring for Belle II**

Speaker Seokhee Park

### Real-time data compression for data acquisition systems applied to the ITER Radial Neutron Camera

Speakers Mr Bruno Santos, Dr Nuno Cruz

#### ECAL DAQ system: electronics auto-recovery and monitoring

Speaker

Prasanna Kumar Siddireddy

#### Scalable Self-Adaptive Synchronous Triggering System in Superconducting Quantum Computing

**Speaker** Dr Jin Lin

## **Development of the ATLAS Liquid Argon Calorimeter Readout Electronics for the HL-LHC**

Speaker ATLAS LAr Calorimeter Group

#### Scanning Test System of p/sFEB for the ATLAS Phase-I sTGC Trigger Upgrade

Speaker Ms Xinxin Wang

#### Single photon source driver designed in ASIC

**Speaker** Mr Bo Feng

### Development of Slow Control Package for the Calorimeter Trigger System at the **Belle II Experiment** Speaker Cheolhun Kim Study of Full Parallel RS(31,27) Encoder for a 3.2 Gbps Serial Transmitter in 0.18 um CMOS Technology Speaker Guangyu Zhang Development and Characterization of a 3.2 Gb/s Serial Link Transmitter for CMOS Image Sensors Data Transmission in Subatomic Physics Experiment Speaker Dr Quan Sun Study of Retina Algorithm on FPGA for Fast Tracking Speakers yifan yang, Wendi Deng Design of remote control software of near infrared Sky Brightness Monitor in Antarctica Speaker Mr Yi Feng Survey and Test Environment for ITER EPP#12 Electrical Components Speaker Dr Xiaoyang Sun Design of Voltage Pulse Control Module for Free Space Measurement-Device-**Independent Quantum Key Distribution** Speaker Ms Sijie Zhang System integration and initial performance of B2link in Belle II experiment Speakers

Prof. Zhen-An Liu, Jingzhou Zhao

#### Data analysis to evaluate the CPPF system in CMS trigger phase I upgrade

**Speaker** Prof. Zhen-An Liu

# Technique of active phase stabilization for the interferometer with 128 actively selectable paths

**Speaker** Yu Xu

#### Control and Readout Software in Superconducting Quantum Computing

**Speaker** Dr Lin Jin

# The Design and Testing of the Address in Real Time Data Driver Card for the Micromegas Detector of the ATLAS New Small Wheel Upgrade

**Speaker** Dr Lin Yao

# Clock Distribution and Readout Architecture for the ATLAS Tile Calorimeter at the HL-LHC

#### Speaker

Fernando Carrio Argos

#### The Electronics Design of Error Field Feedback Control System in KTX

Speaker

Xu Tianbo

#### **Cascading Sensor Network Clock Synchronization Scheme**

Speaker

Mr Meng ZHOU

### The Phase-1 Upgrade for the Level-1 Muon Barrel Trigger of the ATLAS Experiment at LHC

Speaker

Vincenzo Izzo

### Bonds for detection of very inclined ``old'' shower due to anti-aliasing filter in the Pierre Auger surface detector data acquisition system

Speaker

Prof. Zbigniew Szadkowski

#### The Phase-I Trigger Readout Electronics Upgrade of the ATLAS Liquid Argon Calorimeters

**Speaker** ATLAS LAr Calorimeter group

#### Application of PROFINET IO in Neutron Scattering Instruments

Speaker

Harald Kleines

#### The Proton Beam Realtime Monitor System in CSNS

Speaker Dr Jian ZHUANG

#### Application of FPGA Acceleration in ADC Performance Calibration

Speaker

Mr Guangyuan yuan

#### The application of precision time protocol on EAST timing system

**Speaker** Dr Zuchao Zhang

## A true real-time success story: the case of collecting beauty-ful data at the LHCb experiment.

Speaker Federico Alessio

# The design and performance of the ATLAS Inner Detector trigger in high pileup collisions at 13 TeV at the Large Hadron Collider

#### Speaker

Pierre-Hugues Beauchemin

#### A readout method based on 10 gigabit Ethernet for silicon pixel detector

#### Speaker

Dr Hangxu Li

#### The development of a data acquisition system based on FPGA

Speaker

Mr ZHE NING

#### A programmable clock generator for automatic Quality Assurance of LOCx2

Speaker

Mr Yi Feng

### A new high speed, Ultrascale+ based, board for the ATLAS jet calorimeter trigger system

**Speaker** Johannes Frederic Damp

### The uTCA Fast Control board for generic control and data acquisition applications for HEP experiments

Speaker

Dr Jie Zhang

#### A Time Stretch Supply Method to Reduce the Power Line Loss

**Speaker** Dr Jie WU

### Three - phase motor state monitoring and fault diagnosis system based on LabVIEW

**Speaker** Shaoqing Liu

#### A Control System of New Magnet Power Converter for J-PARC Main Ring upgrade

**Speaker** Tetsushi Shimogawa

#### Ultra-precision DC source for Superconducting Quantum Computing

Speaker Dr Jin Lin

# Initial performance of Belle II High Level Trigger and Back End Processing in the Beam Commissioning

Speaker

Ryosuke ITOH

#### Upgrade of data acquisition and control system for microwave reflectometry on Experimental Advanced Superconducting Tokamak

Speaker Fei Wen

# Precision modeling and readout of germanium detector waveforms for MCMC machine learning

**Speaker** Samuel J. Meijer

#### Upgrade of the Analog Integrator for EAST Device

#### Speaker

Yong Wang

# LHCb full-detector real-time alignment and calibration: latest developments and perspectives

Speaker Dorothea Vom Bruch

# Using Adjacent Data Retransmission to Improve the Transmission Efficiency of Multi-hop Relay Networks

Speaker

Dr Xuesong LIU

#### Phase drift compensating RF link for femtosecond synchronization of E-XFEL

Speaker Dominik Sikora

#### Longitudinal Mode-by-Mode Feedback System for The J-PARC Main Ring

Speaker

Yasuyuki Sugiyama

#### VIVADO High Level Synthesis in CLAS12 Trigger System Design

Speaker Dr Sergey Boyarinov

#### **Overview and performance of the ATLAS Level-1 Topological Trigger**

**Speaker** Johannes Frederic Damp

#### Web-based Real Time Monitoring with HTML5

**Speaker** Stefan Ritt

#### Localised response retrieval from Hamamatsu H9500 for a coded-aperture dualparticle imaging system based on an organic pixelated plastic scintillator (EJ-299-34)

**Speaker** Dr Kelum Gamage

## Real-time non-intrusive depth estimation of buried radioactive wastes based on approximate three-dimensional relative attenuation model

**Speaker** Kelum Gamage

**OpenCL implementation of an adaptive disruption predictor based on a probabilistic Venn classifier** 

**Speaker** Mr Enrique Bernal

# A PXI-based, Multi-channel Ultra-fast Data Acquisition System for Transient Pulsed Signal

Speaker

Dr Yafei Du

#### A GENERIC DAQ FRAMEWORK FOR HIGH PERFORMANCE 2D XRAY DETECTORS

#### Speaker

Wassim Mansour

# Back-end Electronics based on an Asymmetric Network for Low Background and Medium Scale Physics Experiments

#### Speaker

Denis Calvet

16:10