

## **Session Program**

**22-26 Apr 2024**



**24th IEEE Real Time Conference - ICISE, Quy Nhon, Vietnam**

***Poster B***

# Thursday 25 April

11:55

## Poster B

Poster Session | Location:

### Design and tuning of a fast beam energy selection control system for CYCIAE-230 cyclotron beamline

**Speaker**  
Qiqi Song

### Online parameter identification and control in the commissioning of nozzle for CIAE

**Speaker**  
Xiong Rui

### A 10-Gb/s Serial Link Transmitter With 4-Tap FFE Function in 55-nm CMOS

**Speaker**  
Qunqi Shi

### A high-precision two-stage Time-to-Digital Convertor in 180 nm CMOS Technology

**Speaker**  
Jiajun Qin

### A digital LLRF system based on phase tracking for HALF linear accelerator system

**Speaker**  
Zhenyan Li

### A 4×6.25-Gbs Serial Link Transmitter Core in 0.18- $\mu\text{m}$ CMOS for high-speed front-end ASICs

**Speaker**  
Jiacheng Guo

### Design of a 0.8 V Low-voltage High-rate Prototype Readout ASIC for the $\mu\text{RWELL}$ -based Inner Tracker Detector

**Speaker**  
Mr Jiaming Li

### A radiation trace recognition framework for the Timepix event data

**Speaker**  
Mr Trình Nguyễn Ngọc Quốc

### A fast front-end readout design for NICA-MPD shashlik electromagnetic calorimeter

**Speaker**  
Mr Xinchu Ran

### A low-complexity MLSE algorithm for the NRZ high-speed transceivers

**Speaker**  
Dongwei Zou

### Anovel readout scheme and low-power design for silicon pixel chip applications

**Speaker**

Mr 强 哩

**The IMPix-S2, a hybrid pixel readout ASIC for beam monitoring****Speaker**

xiaoyang Niu

**A 2.56 Gbps 1:16 Deserializer with a full-rate Clock and Data Recovery for High-Energy Physics Experiments****Speakers**

Prof. Di Guo, Qiangjun Chen

**Design of a 14-bit 40MSPS Pipeline Regional ADC for Monolithic Active Pixel Sensors.****Speaker**

Yuan Tian

**Design of a 11-bit column-parallel ADC for Monolithic Active Pixel Sensor****Speaker**

Weijia Han

**A pixel matrix prototype chip with high-precision time measurement for CMOS pixel detectors****Speaker**

Mr Boyu Cheng

**First performance results for the ZDC Readout Electronics of the external target experiment at HIRFL-CSR****Speaker**

Xianqin Li

**Optimization of Energy Resolution in Topmetal-ii- Pixel Detector: An Exploration of Neural Network and Curve Fitting Strategies****Speaker**

Ni Fang

**Prototype Design of Data Converter Module for LLRF Applications****Speaker**

Mr Qiutong Pan

**Design of an FPGA-based USB 3.0 controller****Speaker**

Zhe Ning

**Methods for On-Orbit FPGA Firmware Update and Verification Based on FLASH****Speaker**

Ran Chen

**Design of application of the CDAU, a common data acquisition unit for HIAF****Speakers**

Chengcheng Liu, Mr Honglin Zhang, Prof. Haibo Yang, Mr Jieyu Zhu, Mr Xianqin Li, Prof. Chengxin Zhao

**Prototype Design of Readout Electronics for the Multiple Sampling Ionization Chamber at HIAF - HFRS**

**Speakers**

Dr Haibo Yang, Mr Xianqin Li, Prof. Chengxin Zhao

**Study on the Design and Production of a Prototype Liquid Level Detection Equipment Utilizing Geiger-Muller Detector****Speaker**

Mr Dang Quoc Trieu

**Developing an Arduino-Based Peak Detector Circuit for Gamma Spectrum Measurement****Speaker**

Ms Thi Minh Hien Nguyen

**Design of Nupix-A2, a Monolithic Active Pixel Sensor for Heavy-ion Physics****Speaker**

Ju Huang

**Measurement Module of Dispersion Interferometer for Real-Time Plasma Density Control at Globus-M2 Tokamak****Speaker**

Dr Svetlana Ivanenko

**Development and commissioning of the beam diagnostics for CIAE proton therapy beamline system****Speaker**

Yang Wang

**The HIPA radio frequency control system application****Speaker**

Mario Jurcevic

**Track reconstruction for the ATLAS Phase-II High-Level Trigger using Graph Neural Networks on FPGAs****Speaker**

Santosh Parajuli

**Study of Decoupler: Empowering FPGA Debugging with ESP32 and IoT****Speaker**

Yifan Yang

**Synchronization between detector and motion axes in a neutron instrument****Speaker**

Harald Kleines

**Alarm and recovery system in the Belle II operation****Speaker**

Takuto Kunigo

**Real Time FFT Calculation Using FPGA PCIe card for KSTAR Magnetohydrodynamic Analysis****Speaker**

Mr Weiguo Que

**A lock-in amplifier module for CO2 dispersion interferometer on EAST tokamak**

**Speaker**

Yuan Yao

**Design and Implementation of Single-server DAQ System for HEPS-BPIX4****Speaker**

Mr Xuanzheng Yang

**Design of the data acquisition system for the transition radiation detector prototype****Speaker**

Hui Wang

**Design of Large Dynamic Range Readout Electronics for the Prototype Calorimeter of VLAST****Speaker**

Qian Chen

**Design of a Pixel Readout Chip for Silicon Drift Detector With Event Driven Readout Method****Speaker**

Mr Wenxuan Cao

**Thermal neutron induces Single-Event Upsets in the FPGA used in particle physics experiments****Speaker**

Chihiro Yamada

**Nupix-H1, a MAPS for real time beam monitoring at HIAF****Speaker**

Hong Yuan

**Research and Application of SIMD-Based Online Data Processing Acceleration Technology****Speaker**

Mr Pengfei Xiao

**The front-end electronics of the Hyper-Kamiokande far detector****Speaker**

Alessandro Di Nola

**Development of warm readout electronics for Time-division Multiplexing SQUID****Speaker**

Mr Nan Li

**A Compact Readout Electronics based on Current Amplifier for Micromegas Detector****Speaker**

Ting Wang

**Development of a High-Bandwidth Waveform Processing System using RFSoc for RI Beam Experiments****Speaker**

Shoko Takeshige

**Hi'BT : a pixel sensor-based heavy-ion beam telescope for ion-track localization at HIAF****Speaker**

Dr Honglin Zhang

**Nupix-H2: a Monolithic Active Pixel Sensor for Multidimensional Measurement****Speaker**

Ms Rui He

**A Frequency Division Multiplexing Room-temperature Electronics Readout Scheme for TES Calorimeter Arrays****Speaker**

Jianguo Liu

**High speed readout electronics for new generation Pulsed Muon Spectrometers****Speaker**

Francesco Caponio

**High-throughput Custom Monitoring for the Mu2e TDAQ System****Speakers**

Mr Sean Cummings, Michael H L Wang

**Front-end Electronics for the Prototype of HERD Transition Radiation Detector****Speakers**

Mr Jieyu Zhu, Mr Haibo Yang, Mr Yangzhou Su

**Real Time Data Acquisition for PET Detector Evaluation based on dual-polarity Charge-to-Digital Converter****Speaker**

Bo Wang

**A 25 Gbps VCSEL Driving ASIC for Detector Front-end Readout****Speakers**

Cong Zhao, Prof. Di Guo

**Advances in Readout Electronics for STCF ECAL****Speaker**

Hanlin YU

**An FPGA-based ADC for PET module applications****Speaker**

songqing liu

**The Software Platform of LabVIEW-FPGA-Based Real-time Processing System in Keda Torus eXperiment****Speaker**

Jiahong Jiang

**AI-Based Online Spectral Classification of Copper Alloys using Prompt-Gamma Neutron Activation Analysis (PGNAA)****Speakers**

Helmand Shayan, Dr Markus Lange-Hegermann

**A Fully Reconfigurable Pipelined Architecture for FPGA-based Parallel PRBS Test Pattern Generators**

**Speaker**

Chengyang Zhu

**CMOS MAPS with a novel readout scheme for the STCF Inner tracker**

**Speaker**

Dongwei Xuan

**Hybrid Scrubber of SEM and Picoblaze for FPGA on COMET Read-out Electronics**

**Speaker**

Eitaro Hamada

12:55