



# 30<sup>th</sup> International Workshop on Post-Binary ULSI Systems (ULSIWS2021)

All in UTC

## Tentative Program

04:00-04:05	Opening Remark <i>General Chair, Masanori Natsui (Tohoku University, Japan)</i>
Session 1: Chair <b>Yosuke Iijima</b> ( <i>National Institute of Technology, Oyama college, Japan</i> )	
04:05-04:20	Examination of Optimal Domain Division in Floating-Point Arithmetic Using Taylor-Series Expansion <b>Jianglin Wei*</b> , <b>Anna Kuwana*</b> , <b>Haruo Kobayashi*</b> , <b>Kazuyoshi Kubo**</b> , <b>Yuuki Tanaka***</b> (* <i>Division of Electronics and Informatics, Gunma University, Japan</i> ) (** <i>Oyama National College of Technology, Japan</i> ) (*** <i>Division of Mechanical Science and Technology, Gunma University, Japan</i> )
04:20-04:35	Digital-to-Analog Converter Architectures Based on Goldbach Conjecture for Prime Numbers in Mixed-Signal ULSI <b>Xueyan Bai</b> , <b>Yuanyang Du</b> , <b>Minh Tri Tran</b> , <b>Anna Kuwana</b> , <b>Haruo Kobayashi</b> ( <i>Division of Electronics and Informatics, Gunma University, Japan</i> )
04:35-04:50	Digital-to-Analog Converter Linearity Improvement Technique Based on Classical Number Theory for Modern ULSI <b>Dan Yao</b> , <b>Anna Kuwana</b> , <b>Haruo Kobayashi</b> , <b>Kazuyuki Kawauchi</b> ( <i>Division of Electronics and Informatics, Gunma University, Japan</i> )
04:50-05:00	Break
Session 2: Chair <b>Takashi Hirayama</b> ( <i>Iwate University, Japan</i> )	
05:00-05:15	Redundant and Non-Redundant Parts of a Switching Function by Bi-Decomposition <b>Yavuz Can</b> ( <i>Institute for Electrical Engineering, Friedrich-Alexander-University Erlangen-Nuremberg, Germany</i> )
05:15-05:30	Machine Learning Approaches to Reduce Scan Time in Positron Emission Tomography <b>Louis Lee*</b> , <b>Katherine Zukotyński**</b> , <b>Vincent Gaudet*</b> (* <i>Dept. of Electrical and Computer Engineering, University of Waterloo, Waterloo, ON, Canada</i> ) (** <i>Depts. of Radiology and Medicine, McMaster University, Hamilton, ON, Canada</i> )
05:30-05:45	Integrating Machine Learning into Medical Imaging: Review of Low-Dose Positron Emission Tomography Approaches <b>Alexa Boothe Stone*</b> , <b>Liam Cristant**</b> , <b>Katherine Zukotyński***</b> , <b>Vincent Gaudet****</b> (* <i>Dept. of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON, Canada</i> ) (** <i>Oakville Trafalgar High School, Burlington, ON, Canada</i> ) (*** <i>Depts. of Radiology and Medicine, McMaster University, Hamilton, ON, Canada</i> ) (**** <i>Dept. of Electrical and Computer Engineering, University of Waterloo, Waterloo, ON, Canada</i> )
05:45-05:50	Closing <i>General Chair, Masanori Natsui (Tohoku University, Japan)</i>

10 (Talk)+5(Q&A) minutes for each presentation