



TueAM-3 Neuromorphic Hardware

Chair: Mutsumi Kimura, Toshimichi Saito

 Room: International Conference Hall III

10:40 - 11:00 Simplification of Processing Elements in Cellular Neural Networks - Working Confirmation using Circuit Simulation - Mutsumi Kimura¹, Nao Nakamura¹, Tomoharu Yokoyama¹, Tokiyoshi Matsuda¹, Tomoya Kameda², Yasuhiko Nakashima²
¹Ryukoku University ²Nara Institute of Science and Technology

11:00 - 11:20 Pattern and frequency generation using an opto-electronic reservoir computer with output feedback
 Piotr Antonik¹, Michiel Hermans¹, Marc Haelterman¹, Serge Massar¹
¹Université Libre de Bruxelles

11:20 - 11:40 A retino-morphic hardware system simulating the graded and action potentials in retinal neuronal layers
 Yuki Hayashida¹, Yuka Kudo¹, Ryoya Ishida¹, Hirotsugu Okuno², Tetsuya Yagi¹
¹Osaka University ²Osaka Institute of Technology

11:40 - 12:00 Stability Analysis of Periodic Orbits in Digital Spiking Neurons
 Tomoki Hamaguchi¹, Kei Yamaoka¹, Toshimichi Saito¹
¹Hosei University

12:00 - 12:20 Letter Reproduction Simulator for Hardware Design of Cellular Neural Network using Thin-Film Synapses - Crosspoint-type Synapses and Simulation Algorithm -
 Tomoya Kameda¹
¹Nara Institute of Science and Technology
