

## **APROPOS/DELTA Winter School 2022: “Approximate Computing and Machine Learning”**

Virtual school 14.-16.2.2022 in Zoom

2 ECTS credits available for PhD students by an approved learning diary, to be returned to [jari.nurmi@tuni.fi](mailto:jari.nurmi@tuni.fi).

Register at <https://forms.office.com/r/rMczdZgsHY> in advance to get the participation link.

### **Agenda (times in CET; for Finnish time add 1 hour)**

#### Monday February 14

- 9:30            Opening, introducing DELTA and APROPOS (Jari Nurmi, TAU)
- 10:00            Approximation by word length adjustments (Giuseppe Tagliavini, UNIBO)
- 11:15            break
- 11:30            Exploiting accuracy tradeoffs in Edge orchestration (Anil Kanduri, UTU)
- 13:00            lunch break
- 14:00            Machine learning and deep neural networks (Luca Benini, UNIBO)
- 15:30            Discussion
- 16:00            end of day

#### Tuesday February 15

- 9:30            Autonomous Drone Inspections and real-time AI analysis (Nili Guy and Benjamin Mandler, IBM Haifa Research Laboratory)
- 11:00            break
- 11:15            Machine learning applications (Enrique Quintana-Orti, UPV, Giovanni Agosta and William Fornaciari, POLIMI)
- 12:15            lunch break
- 13:15            In-memory computing for AI, Irem Boybat-Kara (IBM Zurich Research Laboratory)
- 14:15            Break
- 14:30            Hardware acceleration for Machine Learning, Vidhi Zalani (IBM Yorktown Research Laboratory)
- 16:00            Discussion
- 16:30            end of day

Wednesday February 16

- 9 :30          Machine learning for communications and positioning (Jukka Talvitie, TAU)
- 11:00          break
- 11:15          Efficient machine learning for imaging applications (Jani Boutelier, UWASA)
- 12:15          lunch break
- 13:15          BCPNN (model of cortex) and SOM based genome recognition as approximate computing benchmarks (Dimitrios Stathis, KTH)
- 14:15          break
- 14:30          SiLago platform and plans to extend it for approximate computing (Ahmed Hemani, KTH)
- 15:30          Discussion and closing
- 16:00          end of Winter School