

# Benchmarking workshop

2<sup>nd</sup> July 2021, 08:30-12:35

On Teams



:: csem

# Benchmarking workshop

## Agenda

### 08:30 Welcome & start

- Introduction *Andrea Dunbar*
- Standard benchmarking for machine learning *Siavash Bigdeli*
- Useful benchmarking for commercial neuromorphic hardware *Dylan Muir*

### 09:05 Track 1: Tools and Methodologies

- Simulation framework for energy and latency in multi-core neuromorphic architectures *Stefano Traferro, Amirreza Yousefzadeh*

### 09:45 Track 2: Benchmarking categories

- Consideration of the Real World in Use Case-based Benchmarking *Kay Bierzynski*
- Challenges of using medical datasets *Diana Cojocar*

### 10:25 Break

### 10:40 Track 3: Metrics

- Impact of HW optimizations on KPIs *Petar Jokic*
- Early power extraction with Cadence tools *Erfan Azarkhish*
- KPI-aware optimization and design *Maen Mallah, Ferdinand Pscheidl*

### 11:20 Outlook

- Future of Benchmarking *Simon Narduzzi*

### 11:35 Discussion split into three tracks

What are the main challenges?

What are the current tools, what work is being done?

What direction should ANDANTE project take with respect to these challenges?

### 12:15 Report & feedback

### 12:35 End of the meeting

# Benchmarking workshop

## Participants

Andrea Dunbar, CSEM

Erfan Azarkhish, CSEM

Siavash Bigdeli, CSEM

Simon Narduzzi, CSEM

Petar Jokic, CSEM

Rodrigo Martín Fernández, FhG IIS

Lisa Janker, FhG IIS

Johannes Leugering, FhG IIS

Maen Mallah, FhG IIS

Ferdinand Pscheidl, FhG EMFT

Thomas Kämpfe, FhG-IPMS

Michael Flohr, FAU

Dylan Muir, SynSense

Stefano Traferro, IMEC-NL

Amirreza Yousefzadeh, IMEC-NL

Hadi Saoud, Thalesgroup

Alexandre Valentian, CEA

Ivan Miro Panades, CEA

Johannes Thiele, CEA

Gabriel Pares, CEA

Marta Verona, eesy-innovation

Sabalo, Gradient

Javier Rodriguez, Cartogalicia

Bernhard Vogginger, TUD

Amirhossein Rostami, TUD

Enrique Romay, Televés

Diana Cojocar, Philips

Kay Bierzynski, Infineon

Mario Diaznava, ST Microelectronique



*If you would like to participate and you are not on the participants list above, please send an email to [andrea.dunbar@csem.ch](mailto:andrea.dunbar@csem.ch) to receive a Teams link*

