

## Final program for PhD Workshop @ ISY 2024 on 27 August

Place: Ada Lovelace, building B, Campus Valla

**8:30—8:40**    **Opening and welcome** (host *Mark Vesterbacka*)

**8:45—09:45**    **Where are we going?** (chair *Fatemeh Hashemniya*)

Uncertainty quantification metrics for deep regression  
*Ziliang Xiong*

Energy harvesting in IoT — biomedical applications  
*Wei Cao*

Energy-efficient neural networks for quantum error correction  
*Ran Huo*

### Coffee

**10:15—10:55**    **Efficient communication** (chair *Olle Hansson*)

Mixed-timescale differential coding for downlink model broadcast in wireless federated learning  
*Chung-Hsuan Hu*

Design and optimization of chromatic dispersion compensation FIR filter for fiber optic communication  
*Cheolyong Bae*

**11:00—12:00**    **On the road** (chair *Amina Coric*)

Diffusion-based generative trajectory forecasting  
*Theodor Westny*

Surrogate safety metric for articulated vehicles  
*Abhijeet Behera*

Estimation of remaining life for a battery  
*Arezou Safdari*

### Lunch break

**13:15—13:55**    **Approximating devices** (chair *Narges Mohammadi Sarband*)

Low-complexity memoryless linearizer for analog-to-digital interfaces  
*Deijany Rodríguez Linares*

Joint logarithm-sigmoid approximations for deep neural networks with logarithmic multipliers  
*Theodor Lindberg*

**14:00—14:40**    **Parameter estimation** (chair *Ziliang Xiong*)

Bias compensation for dynamic estimation  
*Richa Verma*

Over-the-air computation  
*Martin Dahl*

### Coffee

**15:10—15:50**    **Neural works** (chair *Mikael Henriksson*)

Leveraging dynamic range analysis for efficient post-training quantization in graph convolutional networks  
*Hadi Mousanejad Jeddi*

Novel approach to analyze graph-structured data  
*Abdolvahab Khalili Sadaghiani*

### Party

**16:30**            Best presentation award ceremony (jury *Robert Malmqvist, Robert Hägglund, and Robert Forchheimer*)