



PUBLICATIONS

Bellec*, G., **Scherr*, F.**, Subramoney, A., Hajek, E., Salaj, D., Legenstein, R., & Maass, W. *A solution to the learning dilemma for recurrent networks of spiking neurons.*Nature Communications (2020)

Scherr, F., Stöckl, C., & Maass, W. *One-shot learning with spiking neural networks.* Manuscript in preparation (2020)

Bellec*, G., **Scherr*, F.**, Hajek, E., Salaj, D., Subramoney, A., Legenstein, R., & Maass, W. *Eligibility Traces provide a data-inspired alternative to backpropagation through time*NeurIPS workshop on Real neurons and hidden units (Talk) (2019)

Subramoney*, A., Bellec*, G., **Scherr*, F.**, Hajek, E., Salaj, D., Legenstein, R., & Maass, W. *Slow processes of neurons enable a biologically plausible approximation to policy gradient* NeurIPS workshop on Biological an artificial RL (Talk) (2019)

Subramoney, A., **Scherr, F.**, & Maass, W. *Reservoirs learn to learn* Submitted (2019)

Bohnstingl*, T., **Scherr*, F.**, & Maass, W. *Neuromorphic hardware learns to learn* Frontiers in Neuroscience (2019)

Bellec*, G., **Scherr*, F.**, Hajek, E., Salaj, D., Legenstein, R., & Maass, W. *Biologically inspired alternatives to backpropagation through time for learning in recurrent neural nets* arXiv (2019)

* EDUCATION

UNIVERSITY OF TECHNOLOGY, Graz, Austria

Institute of Theoretical Computer Science

PhD in Computer science

Advisor: Prof. Wolfgang Maass

UNIVERSITY OF TECHNOLOGY, Graz, Austria

Institute of Theoretical Computer Science

MSc in Information and Computer Engineering (Distinction, GPA 3.9/4.0)

Thesis: Spike-based agents for multi-armed bandits

Major: Computational Intelligence Minor: Information Security

UNIVERSITY OF TECHNOLOGY, Graz, Austria

Institute of Theoretical Computer Science

BSc in Physics (Distinction, GPA 3.8/4.0)

Thesis: Gradient-based optimization of AMEA parameters

UNIVERSITY OF TECHNOLOGY, Graz, Austria

Institute of Theoretical Computer Science

BSc in Information and Computer Engineering (Distinction, GPA 3.7/4.0)

Thesis: Automated security proofs for symmetric ciphers

MAY 2018 - PRESENT

OCT 2016 - APR 2018

OCT 2014 - APR 2018

OCT 2013 - APR 2016



Poster prize NeurIPS workshop on biological and artificial RL UNIQUE research centre	2019
Google hashcode challenge, placed 111/3012	2018
Academic Excellence Scholarship University of Technology Graz	2017
Academic Excellence Scholarship University of Technology Graz	2017
Academic Excellence Scholarship University of Technology Graz	2016
Academic Excellence Scholarship University of Technology Graz	2014



ANYCONCEPT, Graz, Austria Academic Mentor	OCT 2020 - PRESENT
TREVER, Graz, Austria	JIUN 2019 - PRESENT
Academic Mentor	
NEURIPS conference	JUL 2020
Reviewer	
UNIVERSITY OF TECHNOLOGY, Graz, Austria Institute of Applied Information Processing and Communications	MAR 2017 - JUN 2017
Undergraduate teaching assistant in computer networks	
UNIVERSITY OF TECHNOLOGY , Graz, Austria Institute of Applied Information Processing and Communications	MAR 2018 - JUN 2018
Undergraduate teaching assistant in computer networks	
UNIVERSITY OF TECHNOLOGY, Graz, Austria Institute of Applied Information Processing and Communications	AUG 2016 - SEP 2016
Internship cryptography	
UNIVERSITY OF TECHNOLOGY, Graz, Austria Institute of Analysis and Number Theory	OCT 2015 - JAN 2016



Expert level knowledge of TensorFlow (1 and 2) and Python

Analytical skills, broad understanding of diverse deep learning approaches

Applied skills in performing distributed training

Neuromorphic hardware

Creative skills in visualization

Undergraduate teaching assistant in real analysis