Betteti Simone

University of Padua ✉ *smnbet@protonmail.com*

Education

2010–2015 **Liceo Scientifico Statale "L. Da Vinci"**, *Treviso, IT*.
Graduation Mark: 80/100

2013 **Birkenhead College**, *Auckland, NZ*.

2016–2019 **B.A. Psychological Science**, *University of Padua*, Padova, IT, Graduation mark: 110 Cum Laude/110; GPA: 28.15/30.
Thesis: 'Structure Development in Dynamically Pruned ANNs'
(`https://github.com/sim1bet/B.Sc.-Thesis`)

2019–2022 **M.Sc. Mathematical Engineering**, *Univerisity of Padua*, Padova, IT, Graduation mark: 110 Cum Laude/110; GPA: 28.97/30.
Thesis: 'The Relationship Between MSR and Network Properties in Simple Neural Networks of the Cortex'
(`https://github.com/sim1bet/M.Sc.-Thesis`))

2022-2025 **Ph.D. Information Engineering**, *University of Padua*, Padova, IT, Project: Mathematical Models for the Virtual Brain.

Experience

Internships

February-July 2019 **Project/Thesis**, *Computational Cognitive Neuroscience Lab*, Padova.
Achievements:
- Development of a dynamical training process for a DBN
- Development of equally effective ANNs architectures with high sparsity
- Assessment of possible analogies between biological neuronal development and ANNs' topology development

***Supervisors**: Prof. Testolin A., Prof. Suweis S.S.*

August-December 2021 **Thesis**, *Kavli Institute for Systems Neuroscience, NTNU*, Trondheim.
Achievements:
- Spike series analysis by means of Multiscale Relevance
- Development of simple networks exhibiting sustained chaotic activity
- Analysis of the dependence of Multiscale Relevance on the network properties

***Supervisors**: Prof. Suweis S.S., Prof. Roudi Y.*

Summer Schools

September 2019	**Summer School**, *Computational and Theoretical Models in Neuroscience*, Venice, IT.
	Achievements:
	○ Study of signalling in Neuronal populations
	○ Inference of functional and physiological connectivity from time series of neuronal clusters' signalling
	○ Certificate available at `https://github.com/sim1bet/B.Sc.-Thesis/blob/master/ContamiNeuroCertificate.pdf`
August 2021	**Summer School**, *Mathematical Methods in Computational Neuroscience*, Online.
	Lectures on:
	○ Reinforcement Learning
	○ Dimensionality Reduction techniques
	○ Automata
	○ Spiking Neural Networks
September 2023	**Fall School**, *EITN School In Computational Neuroscience*, Paris, FR.
	Achievements:
	○ Comprehensive study of biophysical, mean field, and whole brain models
	○ Simulation of synaptic dynamics for single neurons

Programming Languages

Python.

Matlab.

Computer Skills

Python

Matlab

SLURM

LaTex

Word, Excel, Powerpoint