

Marc Gillioz

Theoretical physicist and software engineer

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WORK

2023.05 - PRESENT

Sion, Switzerland

Senior Academic Associate

HES-SO Valais-Wallis, School of Engineering

- Power systems
- Machine Learning
- Optimization

2022.07 - 2023.04

Zurich, Switzerland

Development engineer

Supercomputing Systems AG

- C#/.NET
- Terraform
- Azure cloud

2019.07 - 2022.05

Trieste, Italy

Postdoctoral researcher

SISSA

- Conformal field theory
- Mathematical physics

2016.10 - 2019.06

Lausanne, Switzerland

Postdoctoral researcher

EPFL

2014.10 - 2016.06

Davis, CA, USA

Postdoctoral researcher

UC Davis

2012.09 - 2014.09

Odense, Denmark

Postdoctoral researcher

University of Southern Denmark

EDUCATION

2008.09 - 2012.08

Zurich, Switzerland

Ph.D.

University of Zurich

Theoretical physics

2003 - 2008

Lausanne, Switzerland

M.Sc.

EPFL

Physics

2005 - 2005

London, UK

Erasmus exchange year

Imperial College

Physics

SELECTED PUBLICATIONS

2025

A large synthetic dataset for machine learning applications in power transmission grids

Nature Scientific Data

2023

Conformal field theory for particle physicists

Springer

2020

A scattering amplitude in Conformal Field Theory

JHEP

2020

Conformal 3-point functions and the Lorentzian OPE in momentum space

Commun. Math. Phys.

SKILLS

</> Code

Python
C++
C# / .NET

Software engineering

Linux systems
DevOps
Cluster computing

Scientific computing

Polars dataframes
Optimization
Computer algebra

Machine learning

JAX
PyTorch
scikit-learn

Physics

Quantum field theory
Particle physics
Complex networks

Electrical engineering

Power grids

CERTIFICATES

Microsoft Azure Administrator Associate

Microsoft

2022-11-21

LANGUAGES

French

Native speaker

English

Fluent

German

Fluent

Italian

Intermediate

Danish

Basic