Goran JELIC-CIZMEK

12 Avenue du Jura, 01210 Ferney-Voltaire, France
+41 78 916 17 24
goran.cizmek@protonmail.com
LinkedIn | GitHub | ORCID | Personal

WORK EXPERIENCE

DEPARTMENT OF THEORETICAL PHYSICS, UNIVERSITY OF GENEVA 2021–present

POSTDOCTORAL RESEARCHER & SCIENTIFIC PROGRAMMER

- Designed and implemented the backend for the website of the non-profit organization Fautor using Django + REST Framework. Used Docker and Gitlab CI/CD for creating automated tests and deployment.
- Developed a Python package (available on PyPI) using NumPy, SciPy, and Matplotlib for performing statistical analyses using a Fisher matrix approach. Used Github Actions for automated testing and deployment of documentation, achieved 99% code coverage.
- Managed a team of 10 as part of the *Euclid* Consortium for the ESA *Euclid* mission. Performed the main statistical analysis using Bayesian methods for determining the impact of relativistic effects on the spectroscopic galaxy sample of *Euclid*.
- Held an online workshop *Using SSH for efficient remote work* as an invited speaker. Demonstrated efficient use of CLI tools such as Bash, SSH, and tmux for simplifying and automating workflows with remote machines.

EDUCATION

DEPARTMENT OF THEORETICAL PHYSICS, UNIVERSITY OF GENEVA 2017–2021

PHD IN PHYSICS

- Performed research in the field of theoretical cosmology, gained advanced analytical and quantitative skills. Authored 4 papers that appeared in peer-reviewed scientific journals.
- Performed statistical forecasts using Python and various numerical libraries (Pandas, NumPy, SciPy) for upcoming cosmological surveys (DESI, SKA 2)
- Developed an approximate mathematical model in cosmological galaxy clustering, which lead to a speed-up of a factor of 10000x compared to previous models. Implemented the model using the C programming language with documentation and tests. Created a high-level wrapper for the package using Cython (available on PyPI).
- Relevant courses: *Scientific computing and software design*, 2021 (5.0/6.0); experience in C++, shell scripting, Linux
- Extensive teaching experience in various undergraduate- and graduate-level physics courses

FACULTY OF SCIENCE, UNIVERSITY OF GENEVA 2015–2017

MSC IN PHYSICS

SKILLS

PROGRAMMING LANGUAGES	Python | Cython | C | C++ | Bash | Wolfram Mathematica
TECHNOLOGIES	GNU/Linux | Github Actions | Gitlab CI | Docker | Git | LaTeX
FRAMEWORKS & LIBRARIES	Django | NumPy | SciPy | Matplotlib | Pandas
LANGUAGES	English (C2) | French (B1) | Croatian (native)
OTHER	scientific writing | theoretical modelling | Bayesian analysis

OTHER

- Co-founder of Geneva-based non-profit organization Fautor
- Innosuisse Start-up Training Business Concept (Feb–Jun 2021 & Feb–Jun 2022)
- Swiss work permit
- EU passport

List of publications available at InspireHEP