

GEORGIOS CHRISTOU

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EDUCATION

MSc Particle and Nuclear Physics, University of Edinburgh, Edinburgh, Scotland Sept 2023 - Present
GPA: 81/100, Distinction A2

BSc Physics, University of Cyprus, Nicosia, Cyprus Sept 2019 - Jun 2023
Graduated with Excellence, 1st in class, GPA: 8.66/10

High School Diploma, Lyceum Makariou III, Larnaca, Cyprus Sept 2015 - Jun 2018
Graduated with Excellence, GPA: 19.22/20

RESEARCH EXPERIENCE

MSc Thesis Nov 2023 - Present
Proton structure and light quark Yukawa couplings, Supervisor: [Dr. Liza Mijović](#) *University of Edinburgh*

CERN Summer Student Programme 2023 Jun 2023 - Aug 2023
CP asymmetries in charm decays, Supervisors: [Prof. Angelo Carbone](#), [Dr. Federico Betti](#) *LHCb Collaboration*

- Development of new kinematic weighting algorithm for the measurement of CP asymmetries.
- Implementation of RapidSim and Particle Gun to simulate data.
The project report is on [CDS](#) and on [GitHub](#).

BSc Thesis Sept 2022 - May 2023
Baryon Spectrum using Lattice QCD, Supervisor: [Prof. Constantia Alexandrou](#) *University of Cyprus*

- The thesis was a continuation of the previous project and the purpose was to complete the calculations for the baryon mass spectrum.
- The first ever calculation of the low-lying baryon spectrum at the continuum limit using exclusively physical point twisted mass fermion ensembles.
- Calculation of the baryon mass spectrum at the continuum limit and comparison with experimental values.
- Prediction of previously unmeasured low-lying masses of doubly- and triply-charmed baryons.

Undergraduate Internship May 2022 - Jun 2022
Baryon masses from Lattice QCD, Supervisor: [Prof. Constantia Alexandrou](#) *University of Cyprus*

- Calculation of various baryon masses using correlator data generated from lattice QCD simulations.
- Implementation of methods for evaluating the low-lying baryon spectrum at finite lattice spacing.

Undergraduate Internship Jun 2021 - Aug 2021
Wheeler-DeWitt solution for Starobinsky potential, Supervisor: [Prof. Nicolaos Toubas](#) *University of Cyprus*

- The main purpose of this project was to see whether initial conditions favouring inflation are probable.
- We approximated the Starobinsky potential as a step function and we used the WKB approximation in the semiclassical regime in order to find the wave function for various values of the inflaton field.
- Using appropriate boundary conditions we constructed the quantum probability density distribution for this inflationary model.

PUBLICATIONS

- A list of my publications can be found on my [INSPIRE](#) profile.

SKILLS

- **Programming:** Fortran, Mathematica, C++, Python, ROOT, Bash/Shell
- **Languages:** Greek (Native), English (IELTS Score: 8, Level: C1), French (Beginner)
- **Technical:** Git, GitHub, L^AT_EX, Linux, Unix

AWARDS & ACHIEVEMENTS

Valedictorian in the Department of Physics, University of Cyprus Jun 2023
Awarded to the student with the highest GPA of the department

OTHER

Cypriot National Guard Military Service: Cyprus, 14 Months Jul 2018 - Sept 2019
Rank: Private