

GEORGIOS CHRISTOU

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EDUCATION

M.Sc Particle and Nuclear Physics , University of Edinburgh, Edinburgh, Scotland	Sept 2023 - Present
B.Sc Physics , University of Cyprus, Nicosia, Cyprus Graduated with Excellence, 1 st in class, GPA: 8.66/10	Sept 2019 - Jun 2023
High School Diploma (Apolytirio) , Lyceum Makariou III, Larnaca, Cyprus Graduated with Excellence, GPA: 19.22/20	Sept 2015 - Jun 2018

RESEARCH EXPERIENCE

CERN Summer Student Programme 2023 Internship, Project Supervisors: Prof. Angelo Carbone , Dr. Federico Betti	Jun 2023 - Aug 2023 <i>LHCb Collaboration</i>
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- Study of CP asymmetries in charm decays at the [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](#).

Continuum limit of the low-lying baryon spectrum BSc Thesis, Project Supervisor: Prof. Constantia Alexandrou	Sept 2022 - May 2023 <i>University of Cyprus</i>
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- The thesis was a continuation of the previous project and the purpose was to complete the calculations for the baryon mass spectrum.
- Became familiar with the environment of exascale computers.
- Implementation of model averaging for bias elimination.
- Using three different ensembles with different lattice spacings and various computational techniques it was possible to calculate the baryon mass spectrum at the continuum limit and compare the results to the experimental values.
- Prediction of previously unmeasured masses of doubly- and triply-charmed baryons.

Low-lying baryon spectrum using lattice QCD simulations Undergraduate Internship, Project Supervisor: Prof. Constantia Alexandrou	May 2022 - Jun 2022 <i>University of Cyprus</i>
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- 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.

Wave function of the universe for the Starobinsky inflationary model Undergraduate Internship, Project Supervisor: Prof. Nicolaos Toubas	Jun 2021 - Aug 2021 <i>University of Cyprus</i>
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- 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.

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 Awarded to the student with the highest GPA of the department	Jun 2023
Grade 5 Music Theory , The Associated Board of the Royal Schools of Music Grade: Distinction	May 2019
Electric Guitar Degree , Musical Horizons Conservatory Grade: Excellent	Nov 2017

OTHER

Military Service: Cyprus, 14 Months Rank: Private	Jul 2018 - Sept 2019
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INTERESTS

My hobbies include photography and especially wide-field and deep-sky astrophotography, as well as creating time-lapse videos. Moreover I enjoy playing guitar and listening to music. Another passion of mine is creating programs to solve numerical problems in physics.