

Joshua Lockyer

Rechbauerstraße 23
Graz, Styria, Austria, 8010
☎ (+44) 7824 646536
✉ joshua.lockyer@uni-graz.at
📄 LinkedIn - Joshua Lockyer

Date of Birth: July 19th, 1999
Place of Birth: Belfast, Northern Ireland
Citizenship: Irish

Education

- February 2023–current **PhD student at the University of Graz,**
Graz, Styria, Austria.
- **Study emphases:** Dark matter phenomenology, beyond the Standard Model, collider phenomenology
 - **Advisor:** Dr. Suchita Kulkarni
- 2018–2022 **MPhys(Hons) Physics with Theoretical Physics,**
The University of Manchester, United Kingdom.
- **Study emphases:** Particle Physics Phenomenology, Quantum Field Theory, Gauge Theories
 - **Master's thesis:** "[Phenomenology of Indirect CP Violation within the \$D^0\$ system](#)"
 - **Advisors:** Prof. Dr. Marco Gersabeck, Dr. Adam Davis
 - **Masters' Thesis Grade:** 84% (UK)
 - **Cumulative Grade:** 71 (UK), First-class
- 2011–2018 **Belfast High School, Northern Ireland.**
- A-Levels: Mathematics (A*), Physics (A) and Further Mathematics (A)

Project work

- August 2022–**Theoretical Physics Department, Institute of Physics, Universität Graz, Graz, Austria.**
- February 2023 ◦ **Advisor:** Dr. Suchita Kulkarni
- 2023 ◦ Monte Carlo simulations of semi-visible jets originating from QCD-like dark sectors
- August 2017 **National University of Singapore (NUS), Clementi, Singapore.**
- Given tour of the facilities available at NUS
 - Worked with students in problem solving workshops
- July 2017 **International Space School Educational Trust (ISSET) Mission Discovery Summer School,**
King's College, London.
- Designed a space-based experiment within a team
 - Gave a final presentation on this experiment
 - Attended talks given by a variety of experts in different fields
- December 2016 **Regional Medical Physics Service, Northern Ireland.**
- Calibrated MRI and CAT scanners alongside qualified staff
 - Attended presentations on the use of particle physics in medical science

Skills

- Languages Python, C++, Mathematica
- Utilities Git, Jupyter Notebook, Mathematica Notebook, Overleaf
- Software \LaTeX , Pythia8, ROOT

Conferences & Workshops

- 12 Jan 2023 **2023 LHC Dark Matter Working Group Winter Meeting,** Hosted at CERN, Geneva, Attendance only.
Online

- July 17-26 2022 **Seattle Snowmass Summer Meeting 2022**, *Particle Physics Community Planning Exercise*, Academic conference hosted by the University of Washington, Seattle, Attendance only.
Online
- January 10-14 2022 **The 30th International Symposium on Lepton Photon Interactions at High Energies**, Academic conference hosted by The University of Manchester, UK, Attendance only.
- November 22-26 2021 **11th International Workshop on the CKM Unitarity Triangle**, *CKM2021*, Academic conference hosted by the University of Melbourne, Australia, Attendance only.
Online
- November 9 2020 **The Wolfram Language: Introduction to Machine Learning**, Online workshop organised by WolframU, Attendance only.
Online

Languages

English - fluent

German - basic

Romanian - basic

References

Dr. Suchita Kulkarni,
Junior group leader,
Institute of Physics
The University of Graz
Universitätsplatz 5
A-8010 Graz.
suchita.kulkarni@uni-graz.at

Prof. Axel Maas,
Professor,
Institute of Physics
The University of Graz
Universitätsplatz 5
A-8010 Graz.
axel.maas@uni-graz.at