# Patrik Adlarson

# Curriculum Vitae

Department of Physics and Astronomy
Uppsala University

☑ patrik.adlarson@physics.uu.se

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## Degrees

2012 **DPhil Nuclear Physics**, *Dep. Physics and Astronomy, Uppsala University*, Sweden, 2012-12-12.

Thesis: Studies of the Decay  $\eta \to \pi^+\pi^-\pi^0$  with WASA-at-COSY, ISBN 978-91-554-8476-7, Supervisor: J. Zlomanzcuk

2007 **M.Sc. Engineering Physics**, *Dep. Physics and Astronomy, Uppsala University*, Sweden. Thesis: Feasibility Study of the  $pd \to ppK^0\Lambda^0$  Reaction at 1450 MeV Beam Energy with WASA at CELSIUS Supervisor: J. Zlomanzcuk, UPTEC F07 042

### Postdoctoral work

since 2017/11 Researcher, Dep. Physics and Astronomy, Uppsala University, Sweden.

2014/05 – 2017/10 **Postdoctoral Researcher**, Post doc, Inst. für Kernphysik, Johannes Gutenberg-Universität, Mainz, Germany.

9 months 2013 **Researcher**, Dep. Physics and Astronomy, Uppsala University, Sweden.

#### Academic Positions

since 2017/11 Researcher, Dep. Physics and Astronomy, Uppsala University, Sweden.

2014/05 – 2017/10 **Postdoctoral Researcher**, Inst. für Kernphysik, Johannes Gutenberg-Universität, Mainz, Germany.

9 mo. 2013 Researcher, Dep. Physics and Astronomy, Uppsala University, Sweden.

2008/01 – 2012/12 **Ph.D. work**, Dep. Physics and Astronomy, Uppsala University, Sweden.

## Successful Grant Proposals

2022 – 2025 Swedish Science and Research Council.

3440 kSEK, co-applicant, main beneficiary

2021 – 2022 **Lundström-Åman Foundation**.

350 kSEK, main applicant

2020-2021 **Olle Engkvist Foundation**.

1200 kSEK, main applicant

2019 **Equal Opportunity Group**.

100 kSEK, main applicant

## Scholarships and other prizes

2019 Wennergrens Travel Stipend.

8.7 kSEK, main applicant

2010 **2nd prize for Poster**.

MESON10, Krakow, Poland

2008 – 2010 Uddeholms Research Stipend.

6 semesters  $\times$  75 kSEK, main applicant

## Collaboration Membership

- 2021 LHCb Collaboration, CERN, Switzerland, Member since November 2021.
- 2017 **BESIII Collaboration**, Beijing, China.

Member, Senior Researcher, Initiator and Convener of Internal Working Group. Convener local UU-BESIII group.

2015 – 2017 **A2 Collaboration**, *Mainz*, Germany.

Member, Postdoctoral researcher, Member, Convener local Mainz-A2 group.

2016 – 2017 **TPC Proton Measurement**, *Mainz*, Germany.

I was active in the early stages of an experiment, with the aim to measure the proton charge radius using an active target TPC in Mainz, Germany. The working group currently consisted of about 20 scientists.

2008 - WASA-at-COSY Collaboration, Jülich, Germany.

Member, Ph.D. researcher

# Appointments and Commitments

#### **BESIII Collaboration.**

Initiator and Convener of Semi-leptonic Weak Decay Working Group (2020 - ); Co-author of internal BESIII document how to treat systematic uncertainties (2019); Convener BESIII Internal Group Meeting (2018 – ), Regular contributor to Software Performance Group (2018 – )

#### Uppsala University.

Member of the Gender Equality Group at the Department of Physics and Astronomy, Uppsala University (2018 -); Board for the Centre for Research- and Bioethics as a Ph.D. Student Representative for Uppsala Student Council (2009 – 2011)

#### JGU Mainz.

Convener of IKAR TPC Project Meetings (2016 – 2017); Initiator and Convener of the  $\eta'$ and  $\omega$  Analysis Group, A2 (2015 – 2017); Initiator, organizer and one of presenters at mini-Analysis Meeting, where our working group presented newly developed analysis tools to wider A2 collaboration (2015).

## **Presentations**

Seminars HISKP(Th), University of Bonn, Bonn (2017); Institute Seminar Johannes Gutenberg Universität- Mainz (2015); Institute seminar at Uppsala University (2011, 2012)

Invited Presentations Weak Interactions and Neutrinos (2021, online); DSPIN19 Workshop, Dubna (2019); Tokyo Tech - Uppsala University 5th Joint Symposium (2018); Plenary speaker at PhiPsi17, Mainz (2017);  $e^+e^-$  collision physics at 1 GeV, Frascati (2016); 7th Workshop HPCOW- Duke Kunshan Uni, Kunshan (2015); A2 Group Report Presentation at DPG Spring Meetings, Germany (2015, 2017); MesonNet International Workshop, Frascati (2014)

Other Presentations DISCRETE (2021) [online]; PANIC (2021) [online]; Nordic Physics Days (2021) [online]; Swedish Nuclear Physics Meetings (2017, 2010-2014); DPG Spring Meeting (2009); MESON Conference Krakow (2010, 2018), STORI11 Frascati (2011); Nordic Nuclear Physics Conference (2011); Nordic Physics Days Lund (2013); PrimeNet Lisbon, Bonn, Jülich, Frascati (2009 – 2011,2014, 2016); Swedish Nuclear Physics Meeting (2009 – 2010, 2014, 2017); Ph.D. Student Days, Uppsala (2008 – 2012)

#### Outreach

SciFest (2016, 2018 - 2020)

Kulturnatten at Gustavianum (2019)

Representing Uppsala University at the chamber of commerce event "Relationsdagen" [https://relation.se] (2014)

At SciFest and Gustavianum we showcased space-time curvature and studied  $\alpha$ ,  $\beta$  decays and muons in a cloud chamber. At Relation I presented my research which included a dance using a nucleus hat.

# Pedagogical Activity and Education

## Supervision

Supervision consists of providing guidance, time plans, discussing analysis and provide feedback on written reports and oral presentations.

#### Ph.D.

Jana Rieger, Uppsala University (co-supervisor 2020 – )

Nora Salone, National Centre of Nuclear Studies, Warsaw (co-supervisor 2020 – )

Sascha Wagner, Johannes Gutenberg University, Mainz (2015 – 2017)

Analysis support four Ph.D. students, JGU, Mainz (2015 – 2017)

#### B.Sc and M.Sc.

Yuliya Bilinskaya, Uppsala University (B.Sc. main supervisor 2022, current)

Roman Sultanov, Uppsala University (B.Sc. co-supervisor 2022, current)

Benjamin Verbeek, Uppsala University (B.Sc. co-supervisor 2021)

Simon Taylor, Uppsala University (M. Sc. supervisor 2018 – 2020)

Annele Heikkilä, Uppsala University (main supervisor B.Sc. 2019)

Niklas Forssman, Uppsala University (main supervisor M.Sc. 2018 – )(left for industry works on spare time to finish)

#### Other supervision

Måns Holmberg, UU (M.Sc. Thesis Scientific advisor 2018 – 2019)

Elias Waagaard, UU/Torino (Subject Reader Erasmus project 2019)

Supervisor in the course "Introduction to the Bachelor Programme in Physics", three students 2021, (Swedish, First Cycle, 5 hours)

Supervisor for reading course "Advanced Course on Topics in Applied Physics", UU, two students UU 2018, (Swedish/English, Second cycle, 16 hrs)

# **Teaching**

#### Lecturing

Co-lecturing Energy Technology, Uppsala University (2021 – ) 41 reg. students (English, First cycle, time 8 hrs)

Lecture "Three Views on Cosmology: Physics, Philosophy and Religion", Uppsala University (2021 – ) approx. 15 attendees (English, First cycle, time 8 hrs)

Summer school SFB1044 School Boppard, Boppard (2015)

#### Exercise sessions

Physics and Finance, 5 credits Uppsala University (2021) 35 reg. students (split between three tutors) autumn 2021 (English, Second cycle, 20 hrs)

Nuclear Physics, 5 credits Uppsala University (2018 - ) 45 reg. students (autumn 2020) (English, Second cycle, 2.9%)

Energy Technology, 5 credits Uppsala University (2019 - ) 45 reg. students (autumn 2020) (Swedish, First cycle, 4.9%)

Mechanics II, Uppsala University (spring 2011) (Swedish, First cycle)

Preparatory course in mathematics for engineering students, Uppsala University (autumn 2006) (Swedish).

## Laboratory Assistant

Electromagnetism I (spring 2020 -) 176 registered students (split between four lab ass.) in spring 2021 (Swedish, First cycle, 3.1%)

Nuclear- and Particle physics, Uppsala University (2008 – 2011) (English, First cycle)

Advanced Nuclear Physics, Uppsala University (2007 – 2010, w. main responsibility 2009 – 2010) (English, Second cycle)

Mechanics II (spring 2010) (Swedish, First cycle).