

Edvin Sidebo

PHD EXPERIMENTAL PARTICLE PHYSICS

Stockholm

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Goals

Newly graduated from KTH after five years of data intensive research in large international collaboration. Now seeking opportunities outside academia. Interested in programming, data analysis and problem solving and learning new things.

Work experience

PhD student experimental particle physics

Stockholm and Geneva

ROYAL INSTITUTE OF TECHNOLOGY

November 2013 - September 2018

- Part of the ATLAS experiment at particle physics laboratory CERN outside Geneva. By analysing data from the proton collisions produced by the Large Hadron Collider me and my group measured properties of the newly discovered Higgs particle. The research consisted largely of data analysis, visualisation and application of statistical methods on the large ATLAS dataset. For two years I led the project to estimate one of the contaminations of the dataset. This estimate and its corresponding uncertainty was a key component without which publication was not possible.
→ [\[Link-Thesis\]](#) [\[Link-PopularScienceArticle-Fysikaktuellt \(p. 8\)\]](#)
- During the time I became an expert within my subfield and was a key person relied on in the group.
- Lived in the Geneva area and worked at CERN during about one year 2016-2017.
- Experience of working with artificial neural networks used for classifying pixel clusters in the ATLAS detector.
→ [\[Link-Proceeding\]](#)
- Much experience of documenting work and presenting it at different levels. Often presented at weekly, video-based meetings, more formally for larger audience at conferences on 3-4 occasions, popular science talks at 3-4 occasions. I am good at putting myself into the listeners perspective and adapt a presentation accordingly.
- Have taught undergraduate physics students in laboration exercises about radiation, detection techniques, statistics, data analysis. In total about 200 hours in the lab, in addition to time spent developing and improving the classes. I was responsible for developing a computer based particle physics lab: spent one month setting it up with a Docker plus jupyter notebook solution. The concept was appreciated by students and teachers who are now taking it further to be used in future courses.
- During six months I supervised a master student in our group at the university, who later got the highest grade (A) on her work.
- Organised a “particle physics afternoon” (talks, quizzes and hands-on exercises) for students at my old high school together with my colleague. The teachers were very pleased with the event which engaged and inspired the students a lot.

Investigator

Sundsvall

SUNDSVALL ELNÄT

Summer 2012, year-end 2012/2013

- At the electric power grid company in my home town I worked with evaluating sizing of cables and analysed a network regulation model. I worked independently with tasks that were not part of the core activity. I learned to take responsibility for my own work and to convince myself and others about results and conclusions.

Teacher

Umeå

NTI-GYMNASIET AND OTHERS

Fall 2013

- Teacher substitute, mostly at upper secondary level in chemistry and physics. I learned to adapt to different situations and students. After being a substitute I got a contract on a few months to help a student with special needs in chemistry.

Teacher (voluntary work)

Gangkharka, Nepal

HELAMBU PROJECT

February - May 2011

- Teaching in math and physics on a boarding school in a mountain village in Himalaya, for children in ages 7-15. I learned to use my imagination and set up the curriculum my self, to make it work in an environment with scarce resources.

Utbildning

Civilingenjör Teknisk Fysik

Stockholm

KUNGLIGA TEKNISKA HÖGSKOLAN

2007 - 2013

- Masterinriktning: subatomär och astrofysik, med uppsats om Higgspartikeln.
- Ett urval av lästa kurser: Numeriska metoder, Grundläggande datalogi, Programkonstruktion, Kvantfysik, Kärnfysik, Subatomär fysik, Industriell Ekologi.

Fristående kurser

Umeå och Stockholm

UMEÅ UNIVERSITET OCH SÖDERTÖRNS HÖGSKOLA

Hösten 2011 och hösten 2012

- Av personligt intresse har jag läst en kurs i filosofins historia (Södertörn) och ekonomisk historia (Umeå).

Färdigheter

Python: mycket goda kunskaper. Har erfarenhet av jupyter notebooks.

C++: mycket goda kunskaper.

bash/terminal: har under min doktorandtid använt en terminal dagligen.

Docker: goda kunskaper. Har satt upp en labb för undervisning med hjälp av Docker (och jupyter notebooks).

git: goda kunskaper. Var ett nödvändigt verktyg i den stora kollaborationen under doktorandtiden.

vim: mycket goda kunskaper.

LaTeX: mycket goda kunskaper. Har typsatt dokument i LaTeX sedan studietiden.

Statistik och

modellering: mycket goda kunskaper. Mestadels erfarenhet av frekventist-metoder. Välbekant med Monte-Carlo-simuleringar.

Språk: Svenska: modersmål. Engelska: flytande i tal och skrift.

Förtroendeuppdrag

Styrelsemedlem

Stocksund

FABRIKEN 4 BOSTADSRÄTTSFÖRENING

Augusti 2017- nuvarande

- Styrelsearbete: ansvar för föreningens ekonomi, service och underhåll, administration. Har identifierat områden lämpliga för investeringar i syfte att förbättra föreningens ekonomi.

Bordtennistränare

Timrå

DELTA BORDTENNISKLUBB

2005-2006

- Tränare en gång i veckan för barn i varierande åldrar från 8 till 15 år. Ansvar för planering och genomförande av träning, coaching vid tävlingar.

Utmärkelser och stipendier

Beviljades våren 2018 anslag för resa från Kungliga Vetenskapsakademien (10 000 kr).

Personliga intressen

På fritiden tycker jag om att träffa vänner och umgås med flickvän och familj. Jag är barnsligt förtjust i bollsporter och har spelat pingis, badminton och beachvolley i olika perioder. Jag odlar också mitt matintresse så ofta jag kan, både genom att laga mat och gå på lokal. Lite mer om mig kan man läsa i artikeln **[Fysikaktuellt-2018-3]** (s. 10).

Referenser

Lämnas gärna på begäran.