Rebeca Gonzalez Suarez - Teaching and Supervision

Contents

Formal training in teaching and learning in higher education

- **Supervising Students for Degree Projects**. March - April 2019, Uppsala University (SE). ***(2 weeks)***.
- **Academic Teacher Training Course**. September - October 2018, Uppsala University (SE). ***(5 weeks)***.
- **Supervising PhD Students**. September - December 2018, Uppsala University (SE). ***(3 weeks)***.
- **Supervising student presentations**. 27-29 August 2018, Uppsala University (SE). *(2,5 days)*.
- **Student-centered teaching and learning**. 4 December 2018, Uppsala University (SE). *(3 hours)*.
- **Mathematics didactics in the ESO** (*Didáctica de las matemáticas en la ESO*). Fall semester 2003, Universidad de Oviedo (ES). *(6 credits)*.

Teaching experience

University courses

- (2019 -) **Teacher**. Lectures, problem solving sessions, exam, for the course *Modern Physics 5.0 c*, at the Department of Engineering Sciences, Uppsala University. Course code:1TE078. Semester: Spring.

Schools

- (2019) **HASCO2019 Summer School**. Teacher: Introduction (21- 26 July) University of Goettingen, Germany.
- (2019) PIER Graduate Week, **Scientific colloquium** "When will the LHC come full Circle?" (23-26 Sep) DESY, Hamburg, Germany.

Supervision of PhD students

PhD student supervision:

- Olga Sunneborn Gudnadottir (2019-) **main supervisor**, hep and data science, partially funded by the Uppsala Centre for Interdisciplinary Mathematics (CIM)
- Jonas Steentoft (2020-) (co-supervisor)
- Thomas Mathisen (2018-2019) (co-supervisor)

I am a member of the **Network for Research Supervisors** in Uppsala University. Uppsala University offers courses in supervision of PhD students for faculty and as a part of these courses there is a study visit to a senior PhD student supervisor to observe a supervision session. I have received the following visits for Supervision Observation:

- Stephan Wagner (October 21, 2020) observed supervision between me and Olga (via Zoom).
- Niklas Wahlström (April 14, 2020) observed supervision between me and Olga (via Zoom).
- Marina Corbella (November 8, 2019) observed supervision between me and Olga.

Supervision at the Bachelor and Master degree levels

Master students

- Olga Sunneborn Gudnadottir (2019), Uppsala University. Thesis Title: *Exploring selections across channels in Dark Matter searches with top quarks at the ATLAS experiment of the LHC*, [link].
- Isis Marina Van Parijs (2013), Vrije Universitet Brussel. Thesis Title: *Measurement of the single top tW associated production in the dilepton decay channel in proton proton collisions at a center of mass energy of 8 TeV*, [link]

Ongoing Master thesis supervision:

- Rohini Sengupta (2020) co-supervised with Suchita Kulkarni
- Jakob Lundström (2020) co-supervised with Juan Antonio Aguilar-Saavedra

Subject Reader (Ämnesgranskare)
- Edvin Eriksson (2020) supervised by Richard Brenner

Project students
- Mario Alves Cardoso 5HP (February 2021) - "Implementation of Variational Autoencoder on simulated particle collider data"
- Rohini Sengupta 15HP (January 2021) - "Long-Lived Particles at the FCC-ee"
- Mario Alves Cardoso 3 HP (June 2020) - Machine Learning Introduction'
- Daniela Romero 3HP (May 2020) - Physics Opportunities of a 100 TeV Proton-Proton Collider
- Olga Sunneborn Gudnadottir 3HP (Jan 2019) - Single Top Physics

Ongoing:
- Daniela Romero 10HP (2020)
- Claudia Rafaela de Sousa Goncalves 5HP (2020)

Other
I was a **CERN summer student program** supervisor in 2012 (Isis Marina Van Parijs) and co-supervisor in 2013 (Ivan Shvetsov), both projects related to single top physics.

In 2020, I was a part of the supervisory team of Honey Gupta, for her project titled *"Deep-compression for HEP data"* within **Summer of Code 2020**, [link].

Production of teaching materials and publications

I have contributed to the IPPOG website, e.g. (links below)
- How to build a salad bowl accelerator.
- Activities with liquid nitrogen.
- Build your own cloud chamber.