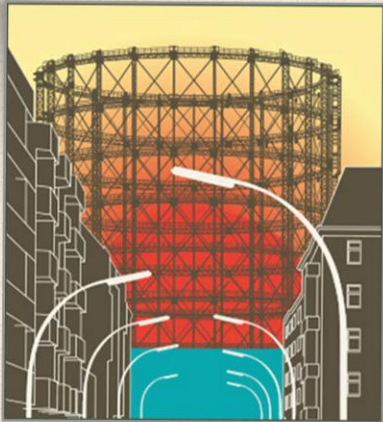


I'm Larissa Prochnow



Schöneberg



Adlenshof



Education & Research

Bachelor

**Bachelor in Physics at
Humboldt University**

Thesis in the Humboldt
ATLAS-Group

Master

**Master in Physics at
Humboldt University**

Specialization: **experimental
particle physics**

Thesis in the ATLAS-Group in
DESY-Zeuthen

PEARLS

**Research at DESY
Zeuthen**

Started in **February 2026**

Pruning Methods with Simran

Bachelor Thesis

Physics Beyond
the SM

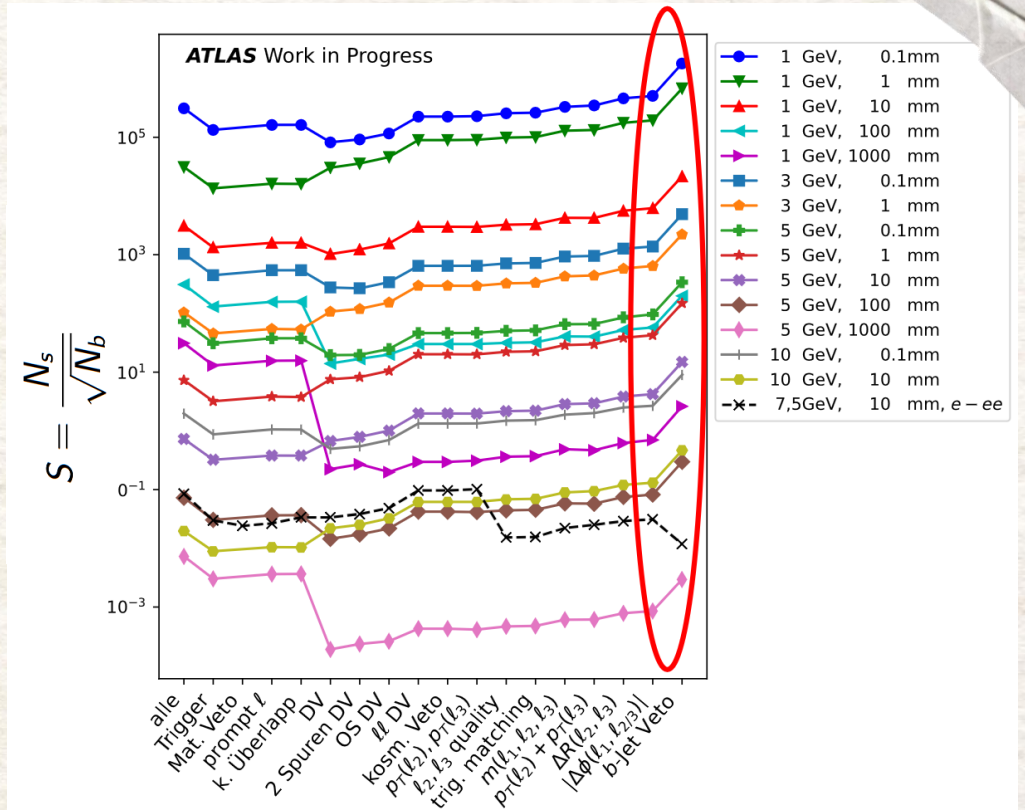
Dark Matter?
Matter-Antimatter-Asymmetry?
Neutrino Masses?
→ Possible explanation:
HNLs
Heavy Neural Leptons
(long-lived right-handed neutrinos)

HNL-Decay

Signature: from collision point
displaced vertex in the detector

Background:
b-Jets

Suppress by using a new
b-Jet-Veto



Master Thesis

Test of the SM-Higgs-Potential

SM predicts value for Higgs-self-coupling



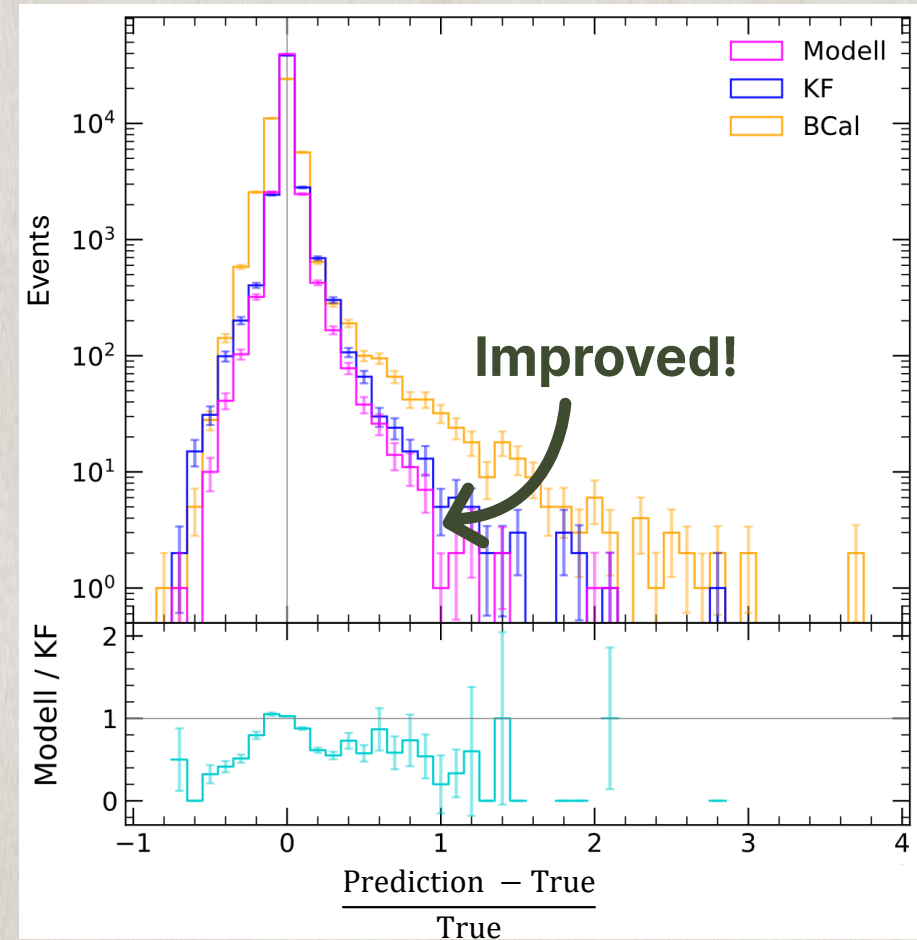
Measuring Self-coupling directly

via the mass-spectrum of two Higgs.
Precision depends on resolution of this mass-spectrum



Improve the Resolution

Neural Network:
Regression of the mass



My Motivation



*Research
Background in
Machine Learning*



*Personal Passion
for
Sustainability*



*Using AI
with a cleaner
conscience*

Interests



Travelling



Micki



Food & Cooking

Turkish
Vietnamese
Indian



Drawing & Painting



Questions?