



Master studies in Particle Physics
Siegen University, Germany
<https://cpps.physik.uni-siegen.de/master/>



Where is Siegen?

Germany



Siegen is located centrally in Germany, around 125 km northwest of Frankfurt and 90 km east of Cologne and can be reached well via train or car. Nearby international airports are in Frankfurt, Cologne and Düsseldorf.



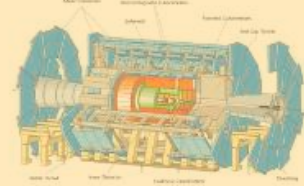
The University of Siegen has around 18.000 students and it has a large theoretical flavour physics group with around 40 members. Downtown Siegen offers many pubs, restaurants and cafes, but also theaters, cinemas and concert halls.

Physics in Siegen - small but excellent

Amazing staff-student ratio



Particle physics



Experimentelle
Teilchen- und
Astroteilchenphysik

Prof. Dr. Markus
Cristinziani
Prof. Dr. Ivor Fleck
Prof. Dr. Markus Risse



Theoretische
Teilchenphysik

Prof. Dr. Guido Bell
Prof. Dr. Thorsten
Feldmann
Prof. Dr. Alexander
Khodjamirian
Prof. Dr. Wolfgang
Kilian
Prof. Dr. Alexander
Lenz
Prof. Dr. Thomas
Mannel

Quantum Optics



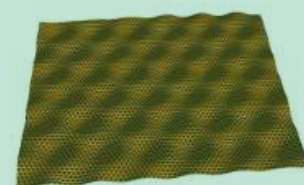
Experimentelle
Quantenoptik

Prof. Dr. Christof
Wunderlich



Theoretische
Quantenoptik

Prof. Dr. Otfried
Gühne
Jun.-Prof. Dr. Stefan
Nimmrichter



Festkörperphysik

Prof. Dr. Carsten
Busse



Nano-Optik

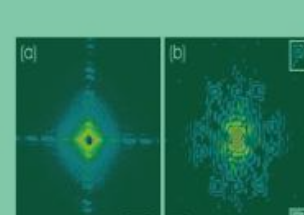
Prof. Dr. Mario Agio

Solid states and X-ray Physics



Röntgentomographie

Jun.-Prof. Peter
Modregger



Röntgenphysik

Prof. Dr. Christian
Gutt



Beschleunigerphysik

Prof. Dr. Jens
Knobloch



Didaktik der Physik

Prof. Dr. Oliver
Schwarz

Didactics

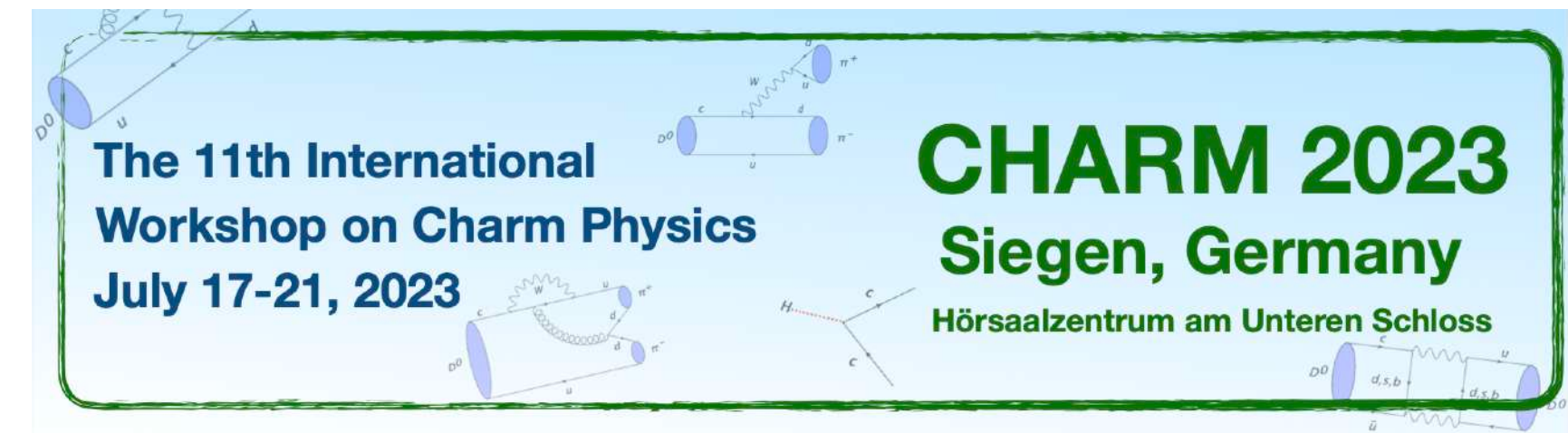
- O(30) beginners in bachelor
- O(10) beginners in master
- O(20) professors



Physics department: <http://www.physik.uni-siegen.de>

Internationally leading research in several areas:

- World's largest group in theoretical flavour physics
- Germany's first quantum computer
- Large experimental group in ATLAS
- Large group for Pierre Auger Observatory
- We are hosting many international conferences



more than a lifetime 22. – 25.9.2025
Siegen, Germany



Organising Committee
Johannes Albrecht (LHCb, Dortmund)
Florian Bernlochner (Belle II, Bonn)
Achim Geiser (CMS, DESY)
Robert Harlander (Theory, Aachen)
Alexander Lenz (Chair, Theory, Siegen)
Ulrich Nierste (Theory, Karlsruhe)
Maria Smizanska (ATLAS, Lancaster)
Guy Wilkinson (LHCb and BES III, Oxford)
Oliver Witzel (Theory, Siegen)

International workshop
Lifetimes of heavy hadrons
— experimental and theoretical aspects
<https://indico.physik.uni-siegen.de/event/498/>

Particle Physics with the ATLAS Experiment

Siegen
September 6–9, 2022
Annual Meeting of the ATLAS EFUM-FSP T02



Program committee
Arnulf Quadt, Volker Büscher, Katharina Behr, Dominik Duda, Mahsana Haleem, Oleg Kuprash, Kerstin Lantzsich, Federico Meloni, Jens Weingarten, Chris Young, Markus Cristinziani

Local organising committee
Markus Cristinziani (Chair), Ivor Fleck (Co-chair), Carmen Diez Pardos, Qader Dorosti, Vadim Kostyukhin, Alexey Petrukhin, Wolfgang Walkowiak, Michael Ziolkowski, Stefanie Grebe (Secretary)

Registration closes August 29, 2022
Info: indi.to/Siegen22

Venue
Hörsaalzentrum US-C
Unteres Schloss 3
Universität Siegen
57072 Siegen

The 5th edition of the workshop
"Beyond the Flavour Anomalies"
Siegen, Germany, 9 – 11 April 2024



Topics

- Rare semileptonic decays
- Tree-level semileptonic decays
- Lepton flavour universality ratios
- Tree-level non-leptonic decays
- Charm sector
- Hadronic effects
- Experimental overviews and prospects
- Beyond the Standard Model

Organising Committee

- Alexander Lenz (Siegen University)
- Mitesh Patel (Imperial College London)
- Konstantinos Petridis (Bristol University)
- Aleksey Rusov (Siegen University)
- Danny van Dyk (Durham University)

Secretariat
• Arzu Ergüzel (Siegen University)

TP1 CPPS Theoretical Particle Physics Center for Particle Physics Siegen

Universität Siegen

Lattice meets Continuum^{3rd edition}
Seminarzentrum Unteres Schloss, Universität Siegen
September 30 – October 3, 2024
<https://indico.physik.uni-siegen.de/event/158/>



Confirmed Speakers

- Oliver Bär (HU Berlin)
- Alessandro Barone (U Mainz)
- Vadim Baru (U Bochum)
- Alessandro De Santis (U Roma Tor Vergata)
- Felix Erben (CERN)
- Martin Gorbahn (U Liverpool)
- Christoph Hanhart (FZ Jülich)
- Robert Harlander (RWTH Aachen)
- Florian Herren (U Zürich)
- Martin Jung (U Torino)
- Takashi Kaneko (KEK)
- Alexander Khodjamirian (U Siegen)
- Daniel Mohler (TU Darmstadt)
- Maria Laura Piscopo (U Siegen)
- Fernando Romero-Lopez (MIT)
- J. Tobias Tsang (CERN)
- Raynette van Tonder (McGill U)
- Alejandro Vaquero (Zaragoza U)
- Keri Vos (Maastricht U)

Organization Committee

- Arzu Ergüzel (Secretary, U Siegen)
- Matthew Black (U Siegen)
- Paolo Gambino (U Torino)
- Shoji Hashimoto (KEK)
- Thomas Mannel (U Siegen)
- Ruth Van de Water (Fermilab)
- Oliver Witzel (U Siegen)

Advisory Committee

- Johannes Albrecht (TU Dortmund)
- Florian Bernlochner (U Bonn)
- Markus Cristinziani (U Siegen)
- Christoph Hanhart (FZ Jülich)
- Stefan Kriegel (FZ Jülich)
- Alexander Lenz (U Siegen)
- Carsten Urbach (U Bonn)

Picture: copyright Universität Siegen

Universität Siegen / **CPPS** Center for Particle Physics Siegen / **TP1** Theoretical Particle Physics / **PCH** / **color meets flavor**

Detector
Development

Centre for Particle Physics Siegen



Data
Analysis

Machine
Learning

ATLAS
CERN

Pierre
Auger

Ship
CERN

Flavour
Physics

Sum
Rules

SCET

Monte
Carlo

Multi
Loop

Lattice



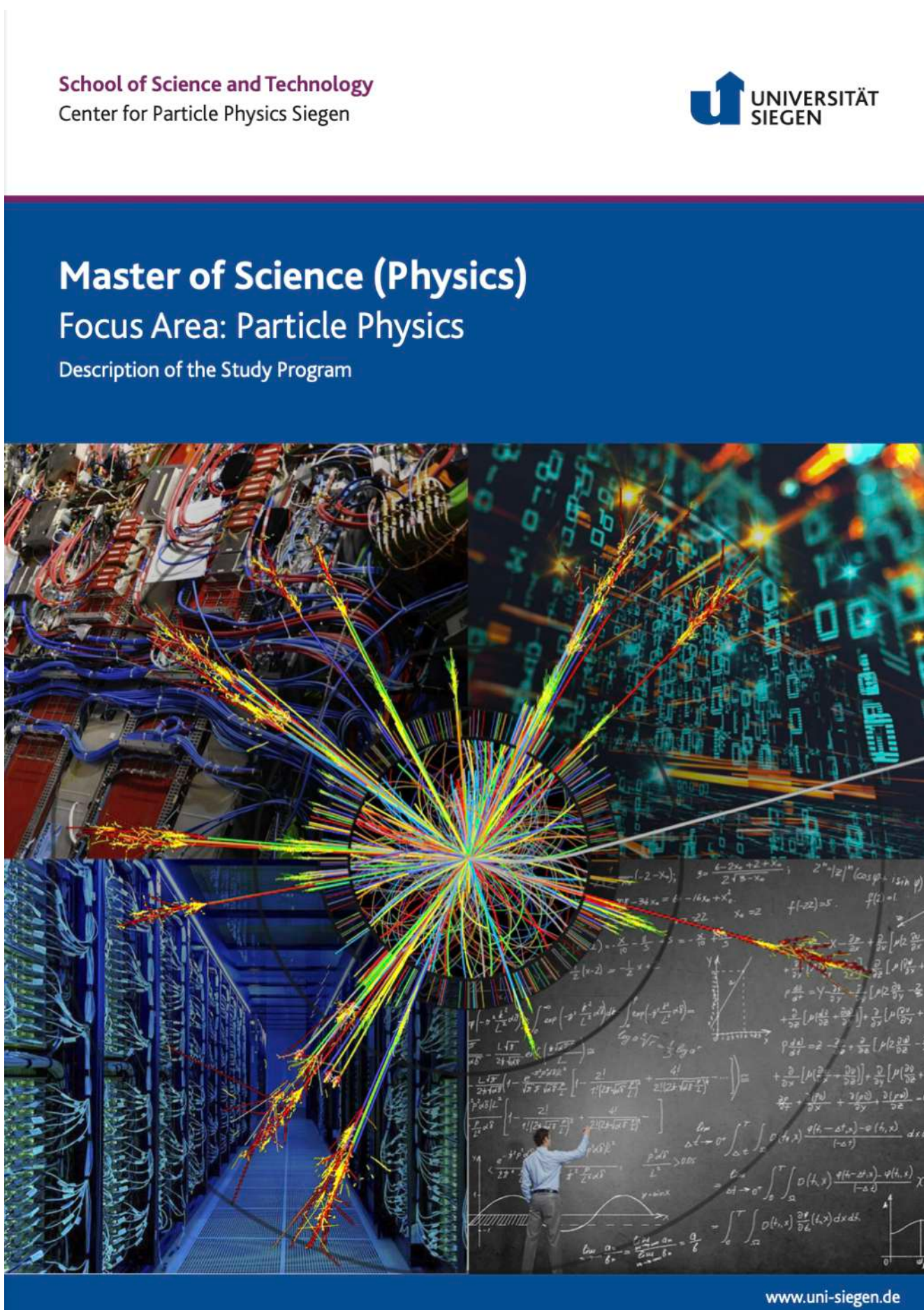
Master in Particle Physics

[Link to brochure for master studies](#)

- 1-2 years of lectures: 2 semester per years - **classes taught in English**
- 1 year of master thesis: results many times in a publication

Example curriculum: (many different possibilities)

Focus Area: Experimental Particle or Astroparticle Physics (start WT)

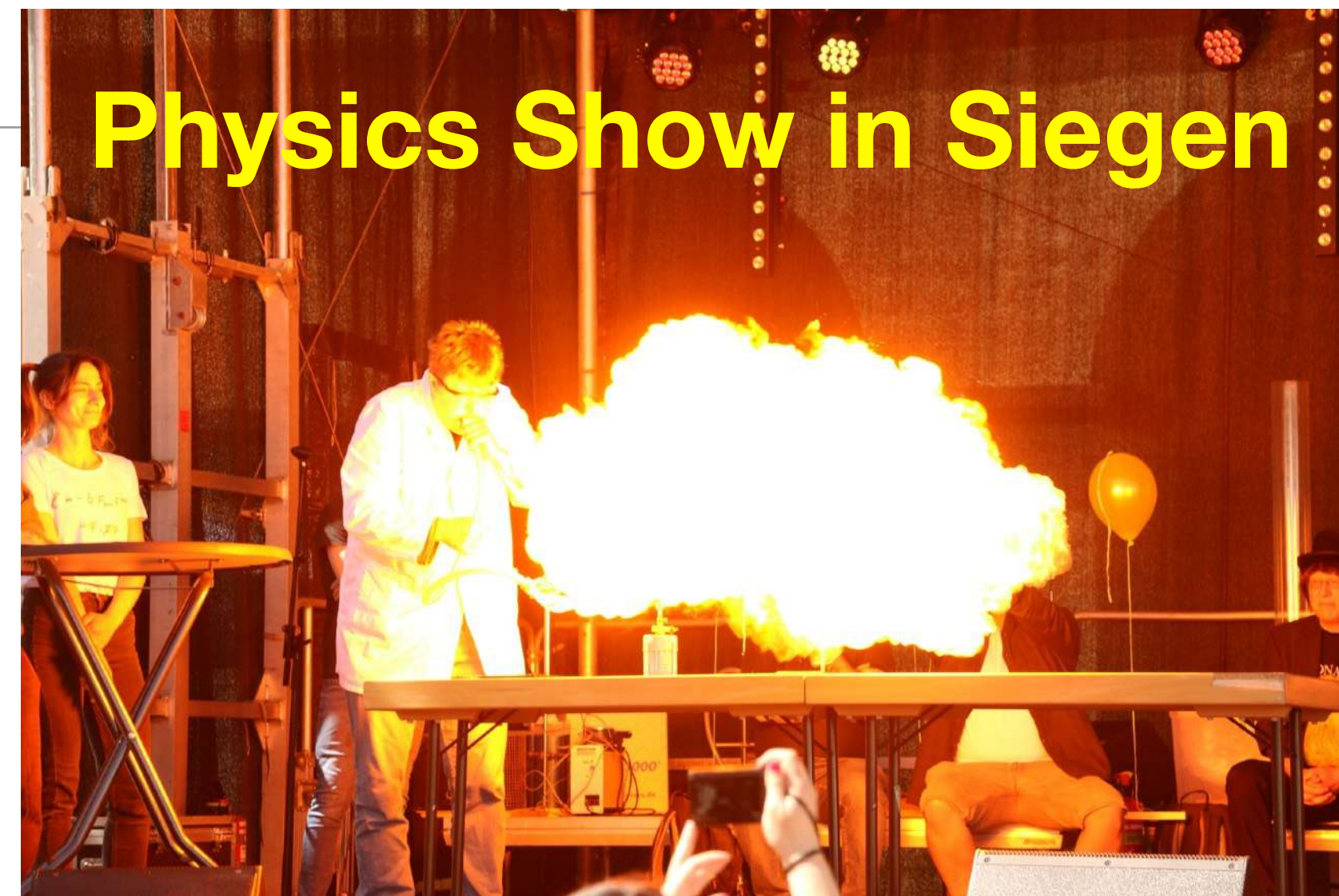


Semester 1 (WT)	Semester 2 (ST)	Semester 3 (WT)	Semester 4 (ST)
Astroparticle Physics 2L/2T (6)	EPP 4L/2T (9)	Oral Exam (-)	
CPPP 4L/2T (9)			
Detector Physics 2L/2T (6)	Cosmology 2L/2T (6)		
	Lab Course Electronics 2L/2T (6)		
	Accelerator Physics II 1L/1T (3)		
Laboratory Course (9)	Master Seminar (6)	Preparation + Training (15+15)	Master Thesis (30)

Additional online courses with Bonn, Jülich and Dortmund

Physics Fun in Siegen

Instagram Channel



Physics Show in Siegen

John Ellis Visiting Siegen



Alexander Lenz @alexlenz42 · Jul 9

Entertaining our visitors at @UniSiegen : Hunt your BBQ in the forests around Siegen #higgs10



Studying Physics in Siegen - where else?

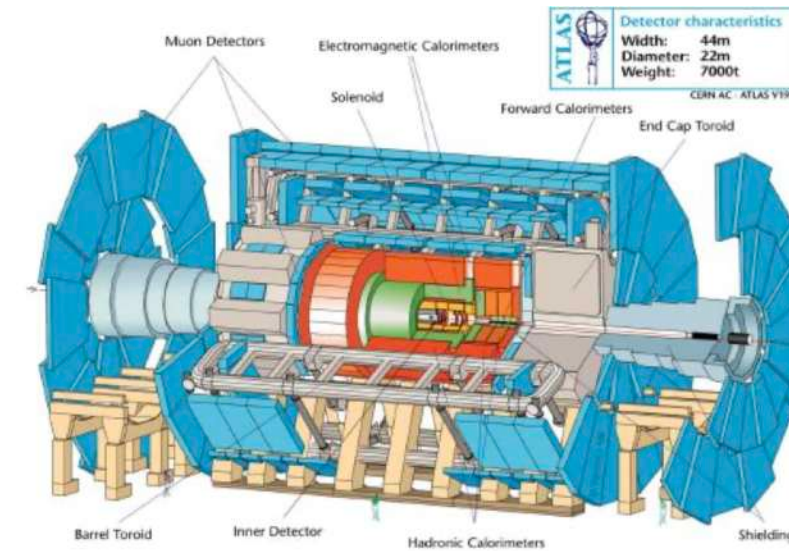
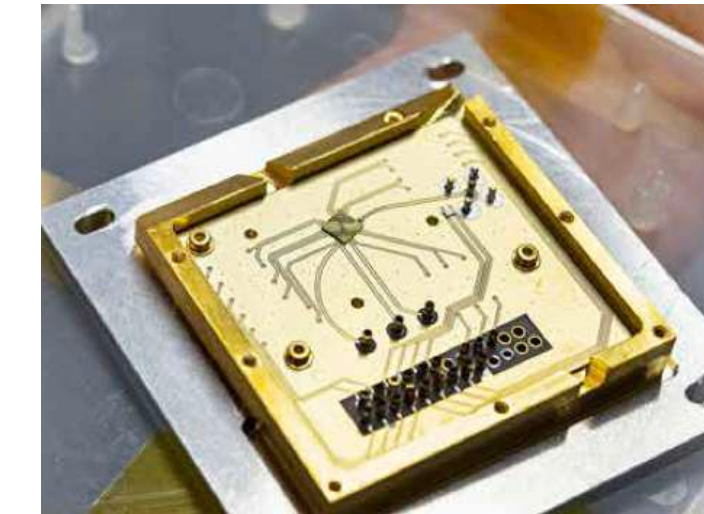
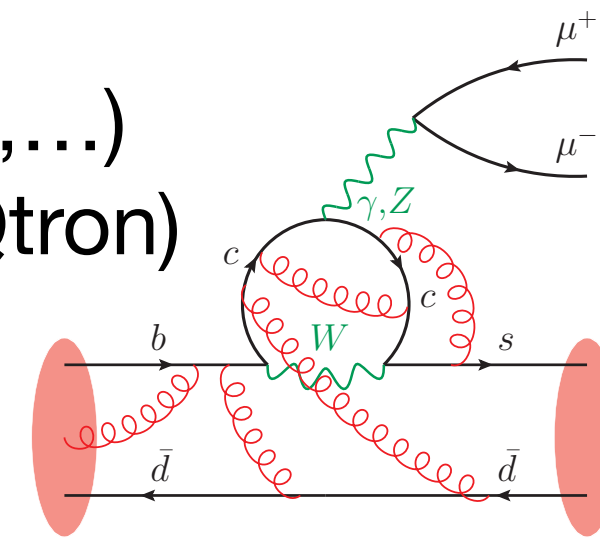
1. Sensational Staff-student ratio

See next page

excellent student satisfaction* —- classes taught in English

2. World leading in several areas, e.g.

- Theoretical flavour physics (Large 3rd party funding projects,...)
- Experimental quantum optics (own quantum computer, EleQtron)
- Experimental particle physics (ATLAS @ CERN, Auger,...)
- X-ray physics (DESY,...) ...



3. Low living costs

See next page

Lowest renting costs in Germany*

no-tuition fees

Administrative fee of currently 333 Euro per term



4. Amazing nature

5. Prepares perfectly for a follow-up PhD

Willkommen bei der jDPG-Regionalgruppe Siegen

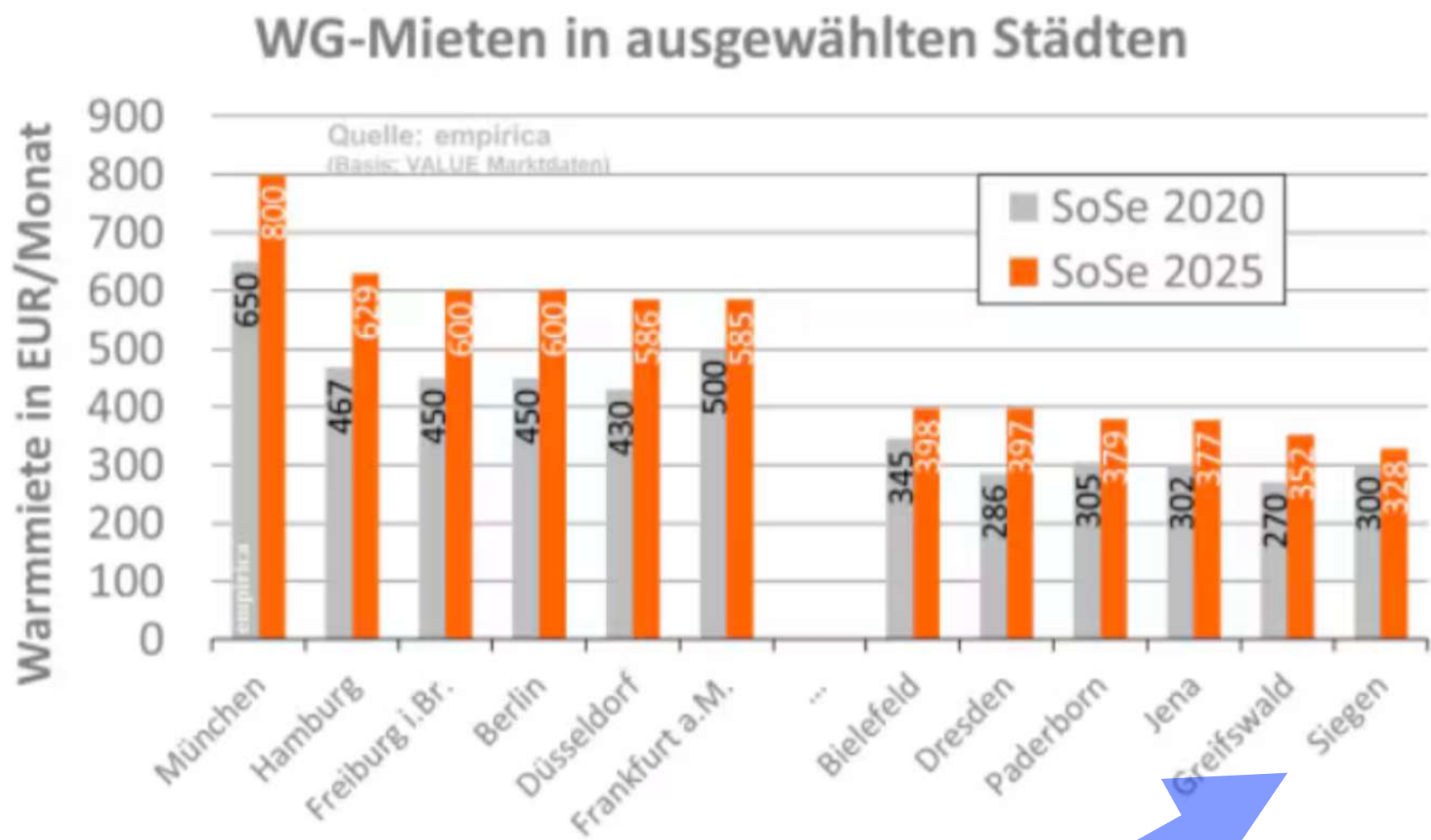
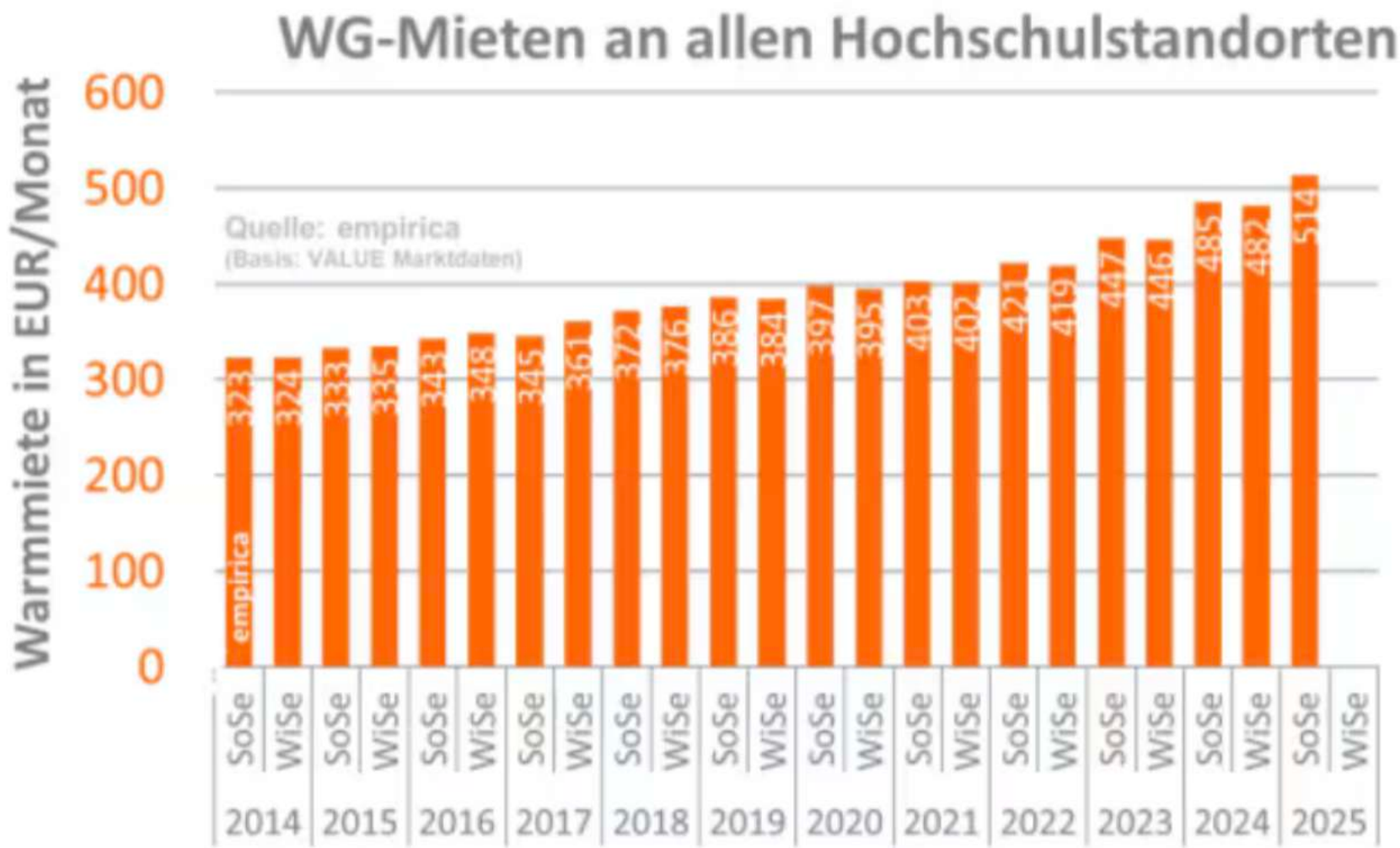
6. Active student life



Uni Heidelberg Fakultät für Physik und Astronomie	TU München/Garching TUM School of Natural Sciences	Uni Siegen Fakultät IV: Naturwissenschaftl... Technische Fakultät
Zur Hochschule	Zur Hochschule	Zur Hochschule
Studium und Lehre		
Allgemeine Studiensituation ?		
★ 4.3	★ 4.5	★ 4.5
Unterstützung im Studium ?		
★ 3.8	★ 4	★ 4.1
Digitale Lehrelemente ?		
★ 3.6	★ 4.1	★ 4.2
Forschungsorientierung ?		
★ 4.3	★ 4.3	★ 4.5
Praxisorientierung in der Lehre ?		
★ 3.5	★ 4.1	★ 4.4
Betreuung durch Lehrende ?		
★ 4.1	★ 4.2	★ 4.5

CHE Master-Ranking 2024 (<https://studiengaenge.zeit.de/>)
Comparing Siegen with the oldest university (Heidelberg) and one of the most prestigious universities (TUM) in Germany
5.0 is the highest possible mark

WG-Mieten 2014 bis 2025 | Städtevergleich Sommersemester 2020 und 2025



Quelle: empirica-Preisdatenbank (Basis: VALUE Marktdaten)

Ranking of average renting costs in German university towns: Siegen ranks last, i.e. the lowest costs :-)

Studying Physics in Siegen - where else?

1. Sensational Staff-student ratio

excellent student satisfaction* classes taught in English

2. World level

- Theoretical
- Experimental
- Experimental
- X-ray physics

3. Low living

Lowest rent in

no-tuition fee

Administrative fee of c

4. Amazing

5. Prepares

6. Active student life



Digital Master Day Particle Physics Siegen

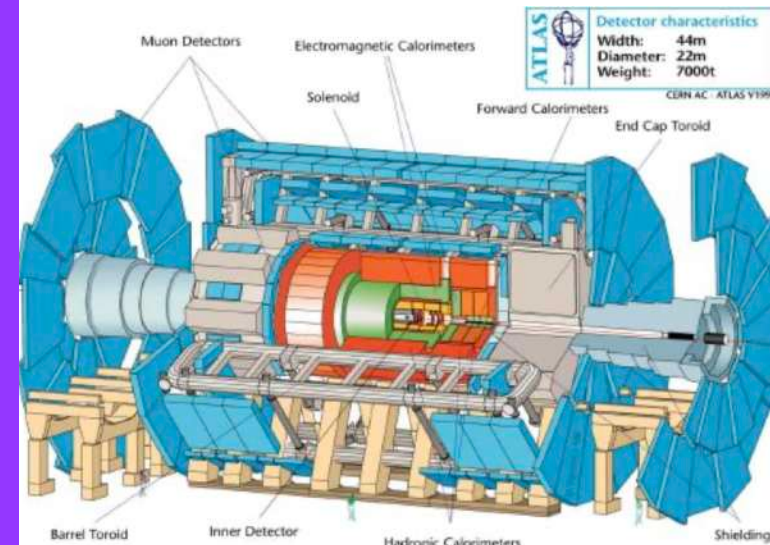
27th March 2025 (6th May 2025)

<https://indico.physik.uni-siegen.de/event/515/>

9:00 Central European Time

Via Webex

<https://uni-siegen.webex.com/meet/alexander.lenz>



Instagram. This is just the beginning. Welcome to the Instagram account of the physics department. Don't forget to follow us on TikTok @physics

#physics #student #cool #science #happy #scientist #phd #postdoc #university #insta #firstvideo #fyp #atom #quantum #music #particle #particlephysics

7w

