



# HASCO School 2023 - welcome

**Arnulf Quadt**  
**Georg-August-Universität Göttingen**



**+ ENLIGHT (Gent, Uppsala, Bratislava)**

**+ Europe (UK, Germany, Belgium, Italy, Switzerland, Spain, Czech Republic, Finland, Norway, Rumania, Sweden, Switzerland, ...)**

**+ Africa, Asia, India, America**



# HASCO and Covid

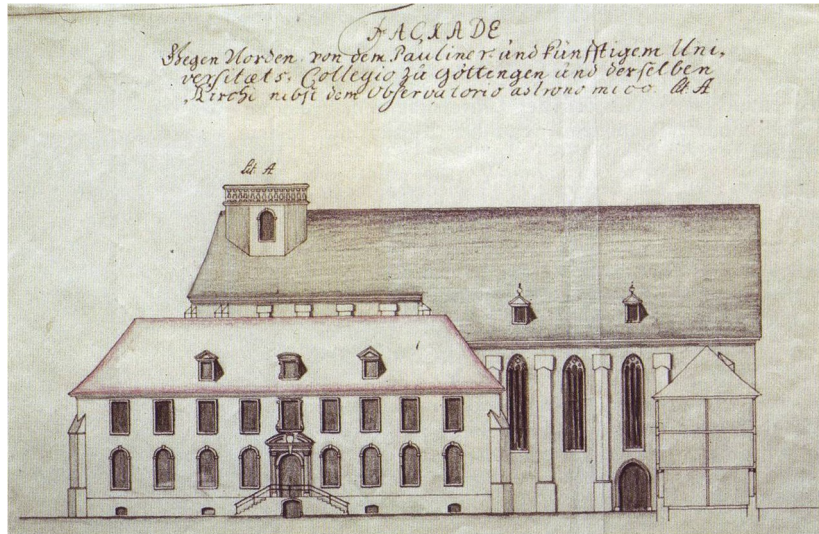
- **50 participants in presence, 12 virtual participants**
- **The Corona pandemic is not yet over. Safety measures still exist, albeit at reduced level**
- **face mask indoor not obligatory, but recommended**
- **Desinfect / wash hands regularly**
- **Keep distance**
- **Follow instruction of orga team, no tricks**
- **If any tests turn out positive or you develop symptoms**  
→ **inform orga team (Arnulf, Baptiste, Stephen)**



# University of Göttingen







1737...

## Göttingen University



... 2022

## Facts and Figures

- Students 2015/16: 31.298
- 12 % international students
- Increasing number of students (from 24.380 (2010/11) to 31.298 students)
- More than 190 study programmes
- 5 Graduate schools (with more than 3.700 doctoral students)



# University of Göttingen

## Göttingen Campus



## International Study Programmes

- more than 50 international study programmes
- mainly international master programmes
- 14 joint international study programmes with partnerinstitutions (double degree / joint degree programmes)







## Infrastructure in Learning and Teaching

- Establishment of new seminar rooms and internships with state of the art equipment
- Investments in multi media lecture rooms
- Excellent University Library
- New teaching and learning building (650 student working places)

# Physics in Göttingen



Georg Christoph  
Lichtenberg



Carl Friedrich  
Gauß



Max  
Born



Werner  
Heisenberg



Peter  
Debye



James  
Franck



Maria  
Göppert-Mayer

cmph | DFG Forschungszentrum Molekularphysiologie des Gehirns  
DFG Research Center Molecular Physiology of the Brain

SFB705  
Nanoscale Photonic Imaging



- 10 million Euro/year (University)
- 7 million Euro/year (external)
- 30 professor positions
- 150 scientists (20% international)
- 100 technical and admin. staff

## STUDENTS

- 1000 students (undergr. & grad.)
- 150-200 beginners per year
- 20% female students
- 5% international students (up to MSc)
- 25% international PhD students



# Schedule

## ERASMUS-IP Hadron Collider Physics School (HASCO) 2023

18:00							
18:30							
19:00							
19:30							
20:00							
20:30							
21:00							
08:00	Mo, 16.07.	Tu, 17.07.	We, 18.07.	Th, 19.07.	Fr, 20.07.	Sa, 21.07.	Su, 22.07.
08:30	breakfast	breakfast	breakfast	breakfast	breakfast	breakfast	breakfast
09:00	Intro & welcome	QCD and jets (theory, 2)	ROOT Lecture (2)	Statistics Lecture (2)	QCD and jets (experiment, 1)		
09:30	hadron collider physics and Kinematics (1)						
10:00							
10:30							
11:00							
11:30	seminar preparation in groups	seminar preparation in groups		seminar preparation in groups	seminar preparation in groups	schlußfest "Dinge des Wissens" Paulinekirche	
12:00							
12:30	lunch	lunch		lunch	lunch	free time in Göttingen	Excursion to Wernigerode (Harz)
13:00							
13:30	hadron collider physics and Kinematics (2)	ROOT Lecture (1)	trip to Wolfsburg and visit of pheno physics exhibition	ROOT & stats. Tutorial (1) @ Uni	QCD and jets (experiment, 2)		visit to the city and steam train ride to Brocken mountain
14:00							
14:30							
15:00							
15:30	break	break		break	break		
16:00							
16:30	QCD and jets (theory, 1)	Statistics Lecture (1)		ROOT & stats. Tutorial (2) @ Uni	student presentations		
17:00							
17:30							
18:00							
18:30							
19:00	dinner	external dinner in restaurant Felini	dinner	dinner	dinner	optional dinner in Göttingen city no dinner foreseen in Youth Hostel	external dinner in Wernigerode
19:30							
20:00							
20:30							
21:00							

08:00	Mo, 23.07.	Tu, 24.07.	We, 25.07.	Th, 26.07.	Fr, 27.07.
08:30	breakfast	breakfast	breakfast	breakfast	breakfast
09:00	electroweak physics (1)	electroweak physics (2)	top quark Physics (1)	SUSY and Exotics (2)	student presentations
09:30					
10:00					
10:30	seminar preparation in groups	detector physics	top quark Physics (2)	student presentations	student presentations
11:00					
11:30	lunch	lunch	lunch	lunch	lunch
12:00					
12:30					
13:00					
13:30					
14:00					
14:30	LHC Accelerator	Higgs physics	SUSY and Exotics (1)	written examination	school summary & certificates
15:00					
15:30					
16:00	break	break	break	break	break
16:30					
17:00	student presentations	student presentations	student presentations & evaluation	student presentations	departure
17:30					
18:00					
18:30					
19:00	dinner	dinner	dinner	external dinner at Burg Plesse	
19:30					
20:00					
20:30					
21:00					

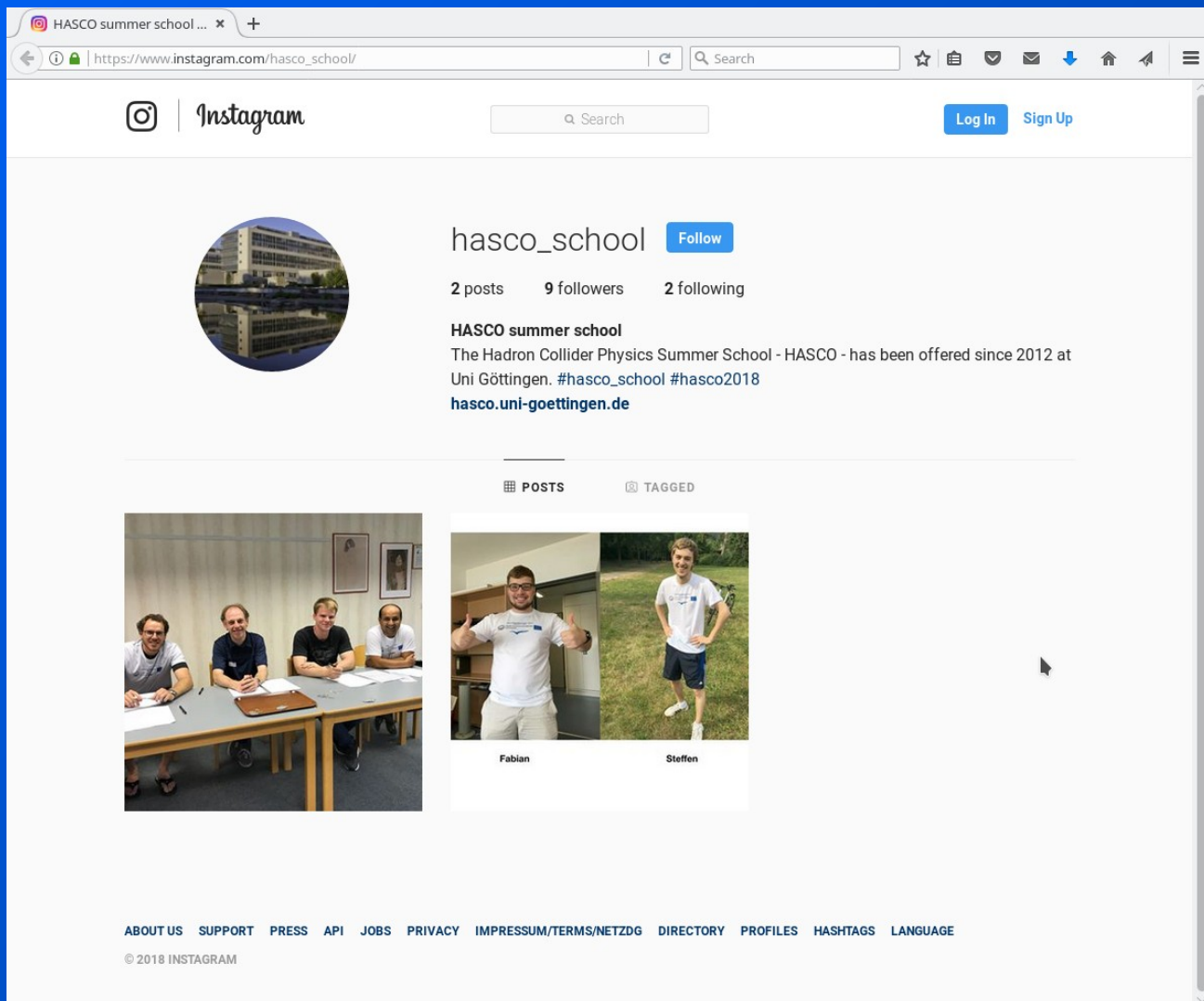


- Lectures & tutorials
- ROOT training session
- written examination on Monday 14-16 → 3 ECTS credits
- Results, certificates and departure on Tuesday (26.07.2023)
- external dinners and BBQ → buffet style for all dietary restr.
- Tuesday morning: group photo
- Tuesday evening: BBQ at youth hostel
- Wednesday evening: group bowling
- Thursday 19h00 at youth hostel: history walking tour
- Friday guest speaker Hans Hoffmann on 40-year anniversary W/Z discovery
- Monday exam
- Monday afternoon: visit of old Gauß observatory
- Monday evening: Dinner in restaurant Pagoda
- Saturday treasure hunt
- Sunday excursion to Harz mountains (hiking)
- Tuesday colloquium and closing session
- Evaluation of school



# Photo competition

- Upload your best pictures to [owncloud.gwdg.de](https://owncloud.gwdg.de)
- We will make a preselection and repost the best ones every day.
- We will have a vote on the best ones.
- Prizes will be awarded on Tuesday.
- Can also post pictures in
  - WhatsApp group
  - Facebook group
  - instagram





# More info



- Coffee breaks → CaPhy (get & load electronic guest card)
- Lunch → Lunch box (get & load electronic guest card)
- Film team and photos (see HASCO web page)
- WLAN
- Student-ID & GöVB (FAIRTIQ)
- Bus schedules:
- School fee receipts and reimbursement
- Secretariat (Janika Jerke, Vicky Tanger)

## The Team:

Sreelakshmi JS  
 Steffen Korn  
 Baptiste Ravina  
 Arnulf Quadt  
 Janika Jerke  
 Vicky Tanger

