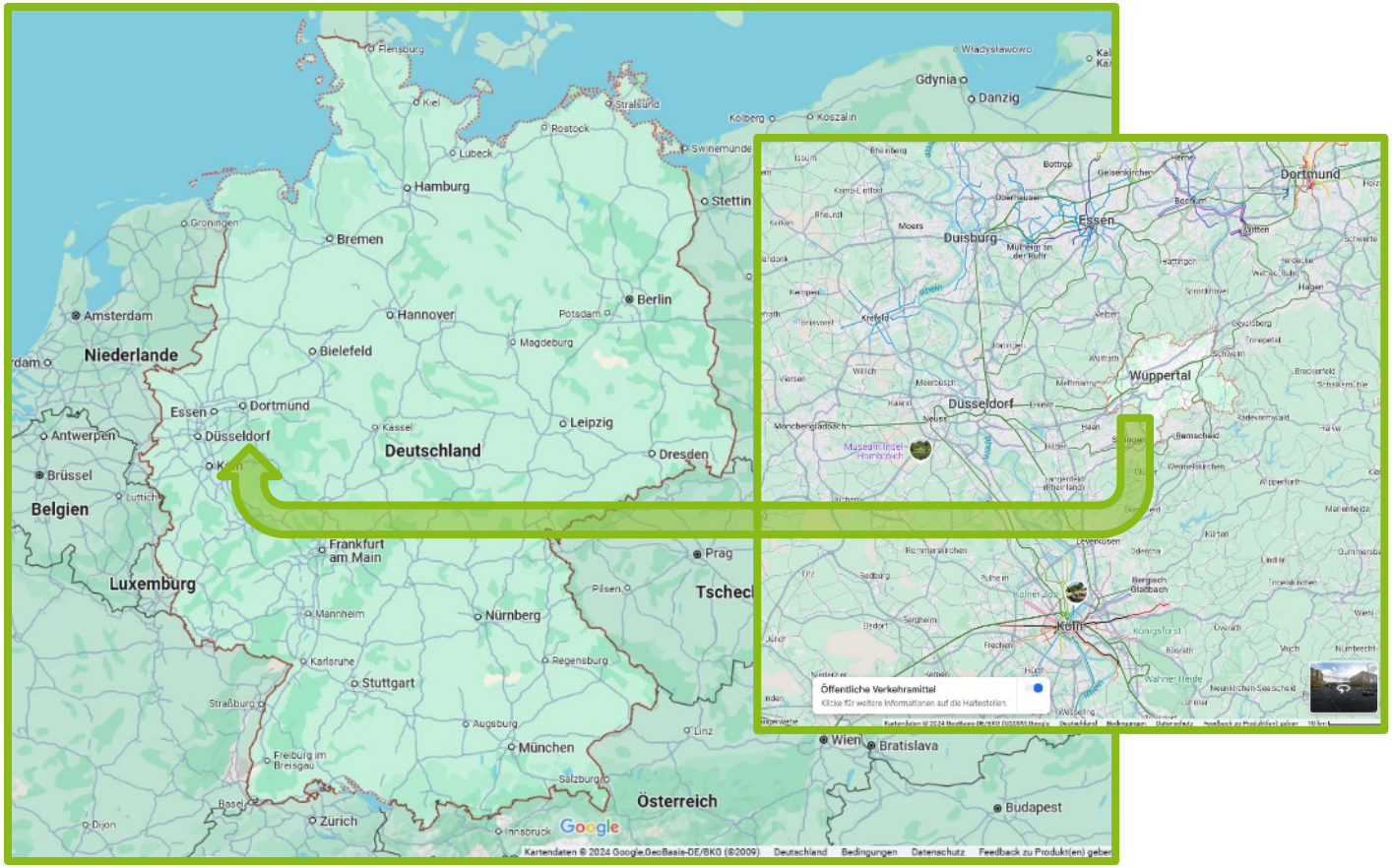
M.Sc. Programme
„Computer Simulation in Science“ (CSiS)

Speaker: Dr. Tomasz Korzec
CSiS Lecturer
June 10th 2025 at MyGermanUniversity

BERGISCHE UNIVERSITÄT WUPPERTAL

BASIC INFORMATION – City of Wuppertal

Where we are and how to get to us

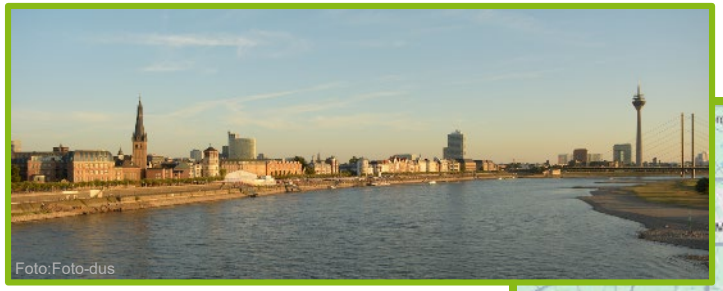


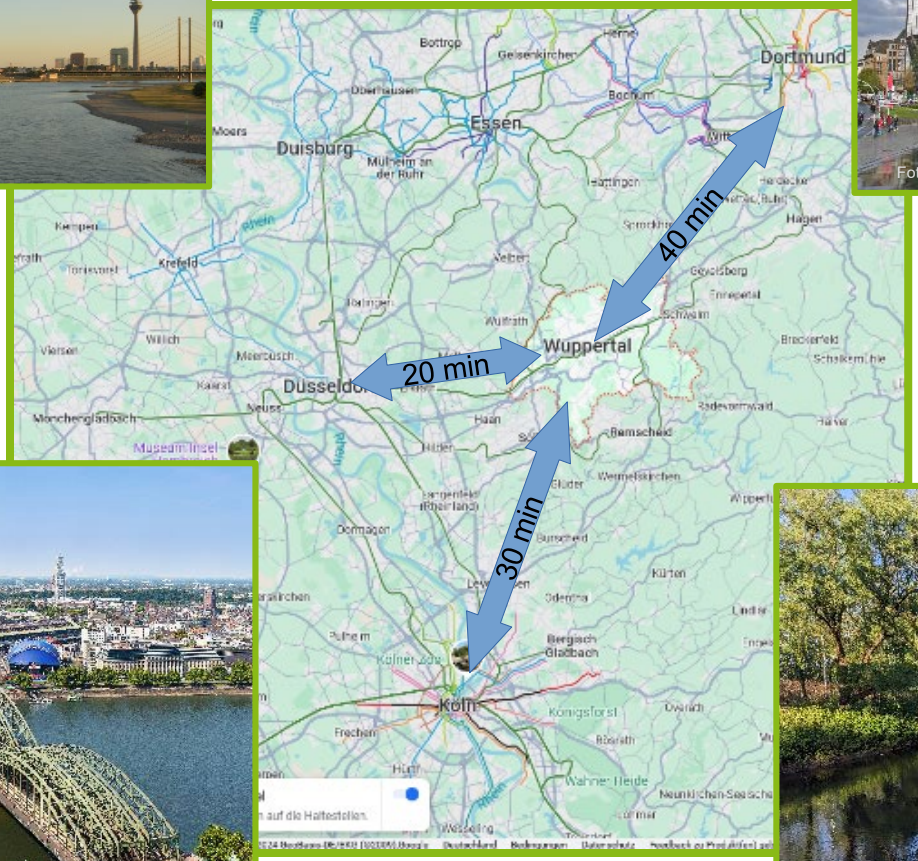
By plane: airports Düsseldorf, Dortmund and Cologne-Bonn

By train:
direct connections to Düsseldorf, Cologne, Bonn, Berlin, Hamburg, Leipzig, Dresden, Munich, Frankfurt a.M., Stuttgart, Vienna

BASIC INFORMATION – City of Wuppertal

- Central Location





- Beautiful Nature

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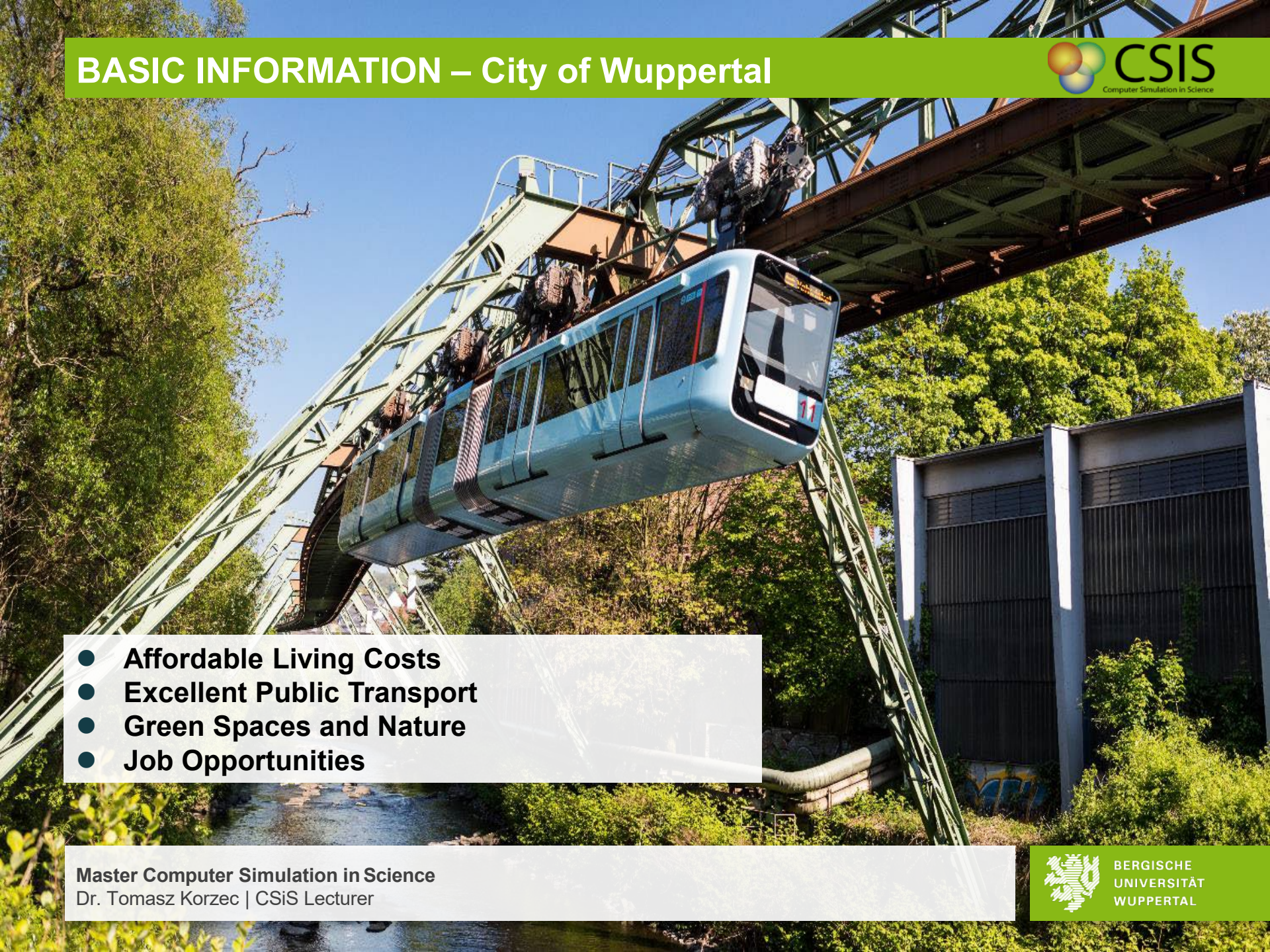

- Affordable Living Costs
- Excellent Public Transport
- Green Spaces and Nature
- Job Opportunities

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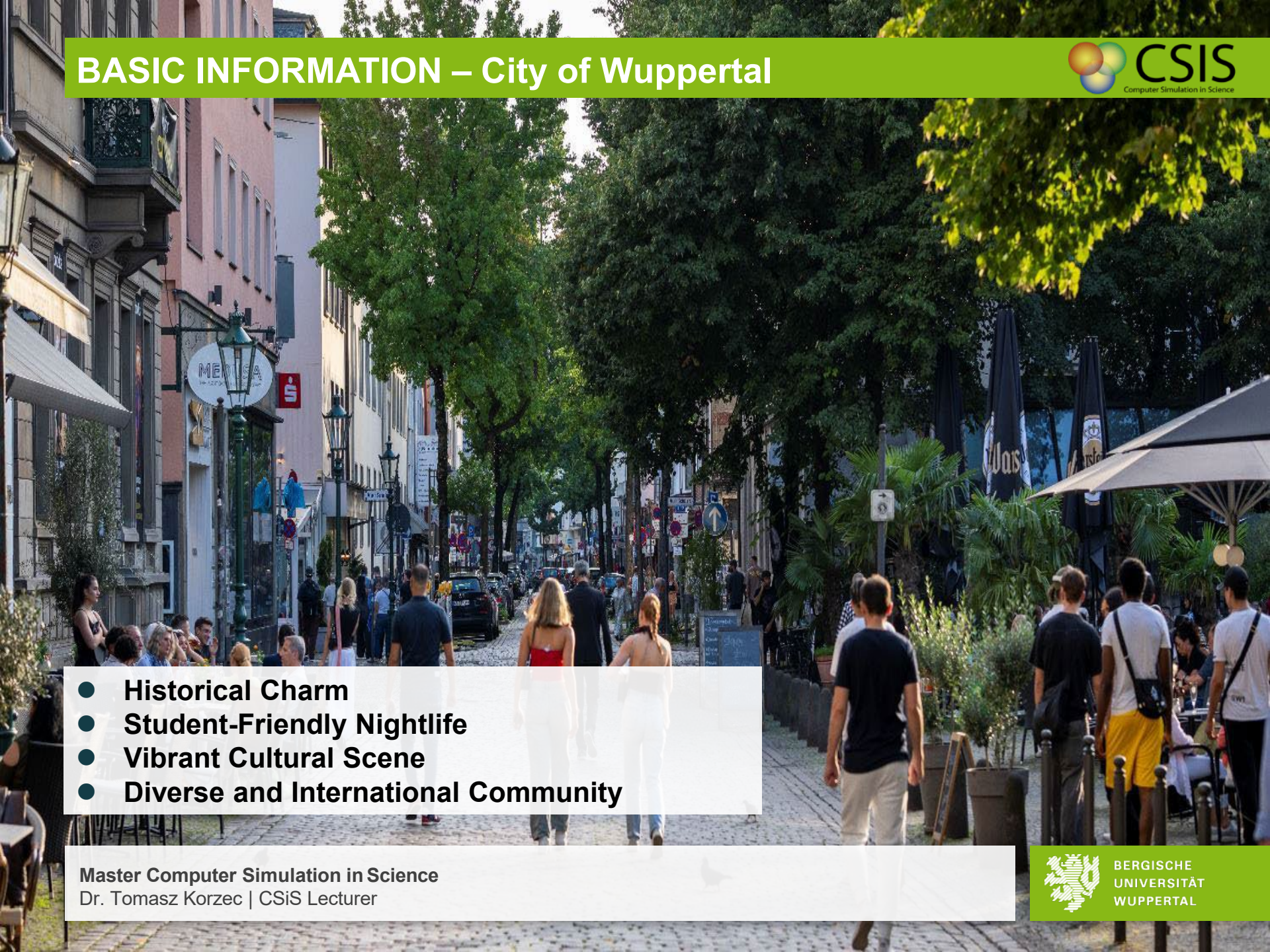
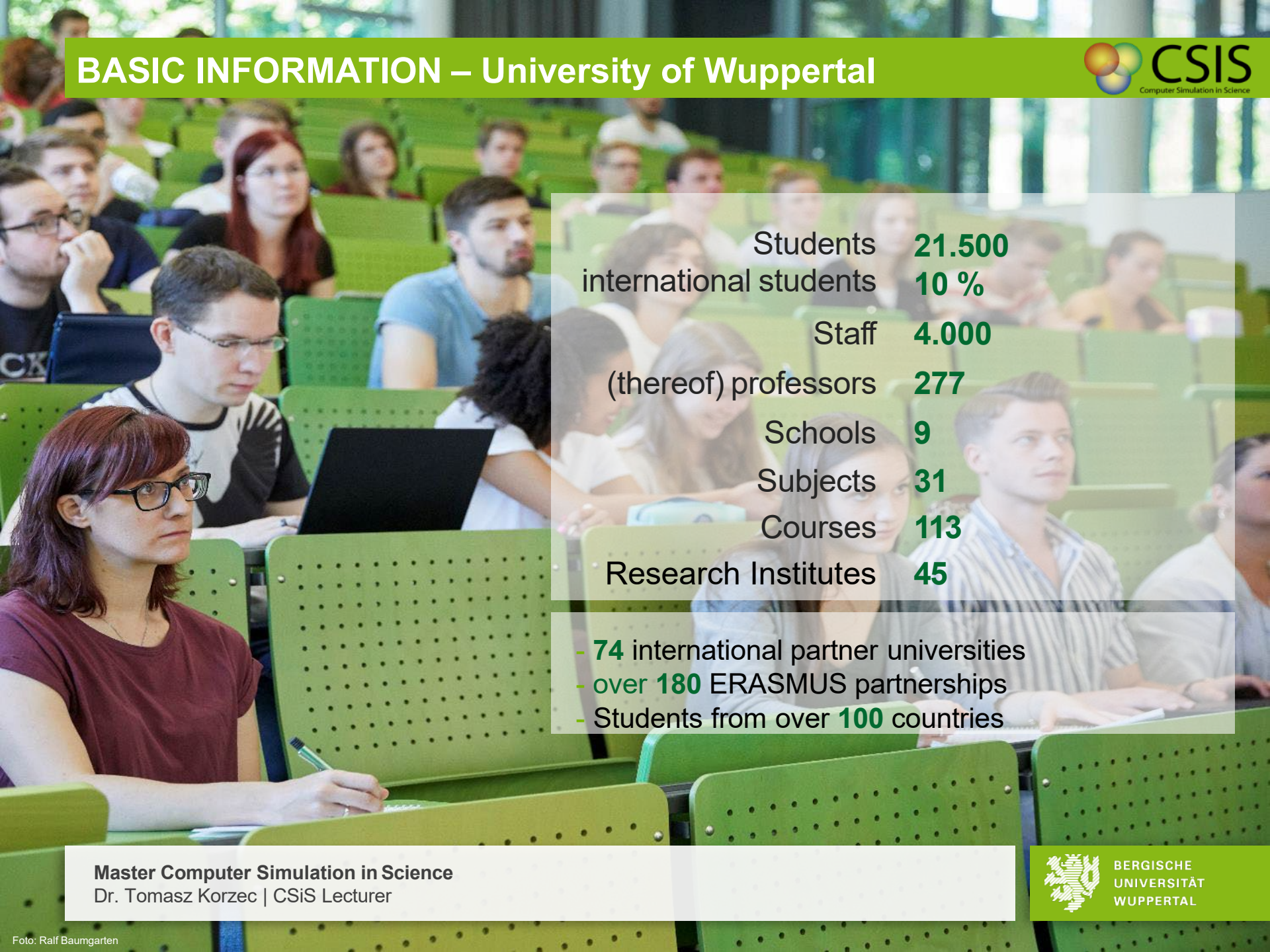


- Historical Charm
- Student-Friendly Nightlife
- Vibrant Cultural Scene
- Diverse and International Community

BASIC INFORMATION – University of Wuppertal



Students	**21.500**
international students	**10 %**
Staff	**4.000**
(thereof) professors	**277**
Schools	**9**
Subjects	**31**
Courses	**113**
Research Institutes	**45**

- **74** international partner universities
- over **180** ERASMUS partnerships
- Students from over **100** countries

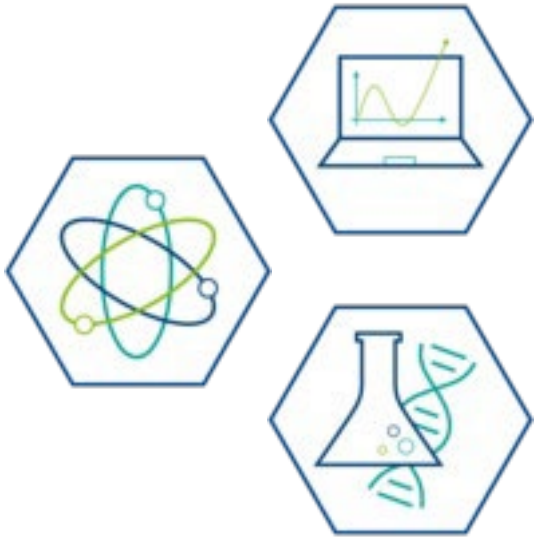
Master Computer Simulation in Science
Dr. Tomasz Korzec | CSiS Lecturer

BERGISCHE UNIVERSITÄT WUPPERTAL

Foto: Ralf Baumgarten

M.Sc. Computer Simulation in Science

- taught in English
- start in winter semester only
- no tuition fees but a a semester fee of currently 337 € which includes public transportation pass “Deutschland -Ticket” as of summer semester 2024
- accredited in 2008 and re-accredited in 2013 byAQAS and in 2020 by ZeVA
- interdisciplinary: mathematics, informatics and natural sciences
- research oriented in terms of university/ PhD career as well as research departments in industry
- cooperations with engineering departments for elective subjects
- CSiS Secretariat & International Office of the School of Mathematics and Natural Sciences



Curriculum

Semester	Compulsory Subjects			Elective Subjects	Total
	Computer Simulation	Computer Science	Numerical Methods		
1	11 CP	9 CP	8 CP	--	28 CP
2	13 CP	3 CP	8 CP	8 CP	32 CP
	1st year				60 CP
3	12 CP	4 CP	6 CP	8 CP	30 CP
4	Master Thesis			30 CP	30 CP
	2nd year				60 CP
	Total				**120 CP**

Compulsory Subjects

Term	Computer Simulation	Computer Science	Numerical Methods
1	Introduction to Computer Simulation (CSim1) Lab Course I (CSim1) Block Course on Mathematical Foundations (CSim1)	Modern Programming (CS1) Virtualization I (CS1) or Introduction to HPC (CS1)	Numerical Analysis and Simulation I (NM1) or Advanced Numerics (NM1a) or Mathematical Machine Learning (MathML)
2	Data Analysis (CSim2) Parallel Algorithms (CSim2)	Tools (CS2) or Bayesian Learning (BayesLearn)	Numerical Methods 2a: Numerical Analysis and Simulation II (NM2a) or Numerical Methods 2b: Numerical Methods in Classical Field Theory and Quantum Mechanics (NM2b)
3	Introduction to Computer Simulation II (CSim3) Lab Course II (CSim3)	Image Processing and Data Visualization (CS2 cont.) or Virtualization II (CS2 cont.)	Numerical Linear Algebra (NM3)

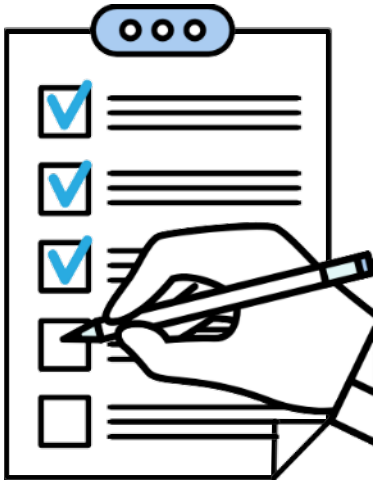
Elective Subjects

2 x 8 credit points: 2nd and 3rd semester

- Atmospheric Physics
- Computational Electromagnetics
- Computational Finance
- Computational Fluid Mechanics
- Detector Physics
- Imaging in Medicine
- Molecular and Materials Modelling
- Theoretical Particle Physics

Scientific requirements for admission to CSiS

- Bachelor‘s or diploma degree (minimum 180 ECTS) in applied science, business mathematics, chemistry, electrical engineering, mathematics, mechanical engineering, safety engineering, physics or a related field with a **grade of at least 3.0** in the German ranking system.
- Advanced knowledge in the field of specialization chosen corresponding to 24 ECTS credits or 13%.
- Knowledge of at least one programming language corresponding to 8 ECTS credits or 4%.
- Mathematical knowledge corresponding to a Bachelor of Science or Engineering refreshed in the Block Course on Mathematical Foundations in the first two weeks of the programme.



Time schedule for international students

Timeline for start in winter semester 2026/27

1. Formal Application: November 15, 2025 – February 15th, 2026
Send your online application to uni-assist e.V. and upload all relevant documents.
A list of documents needed is available on our website:
https://www.csis.uni-wuppertal.de/en/application/

2. Scientific Check: April 1 – May 15, 2026
The scientific requirements will be checked by the CSiS admission committee based on: Bachelor transcripts, Scientific Check Sheet (template on Website available), a CV is optional.
Applicants may be asked to submit a digital qualification evaluation exam (QEE) on Mathematics and Programming skills at Bachelor level.

3. Study Admission: until June 15, 2026

4. Start of the winter term's lecture period: October 2026

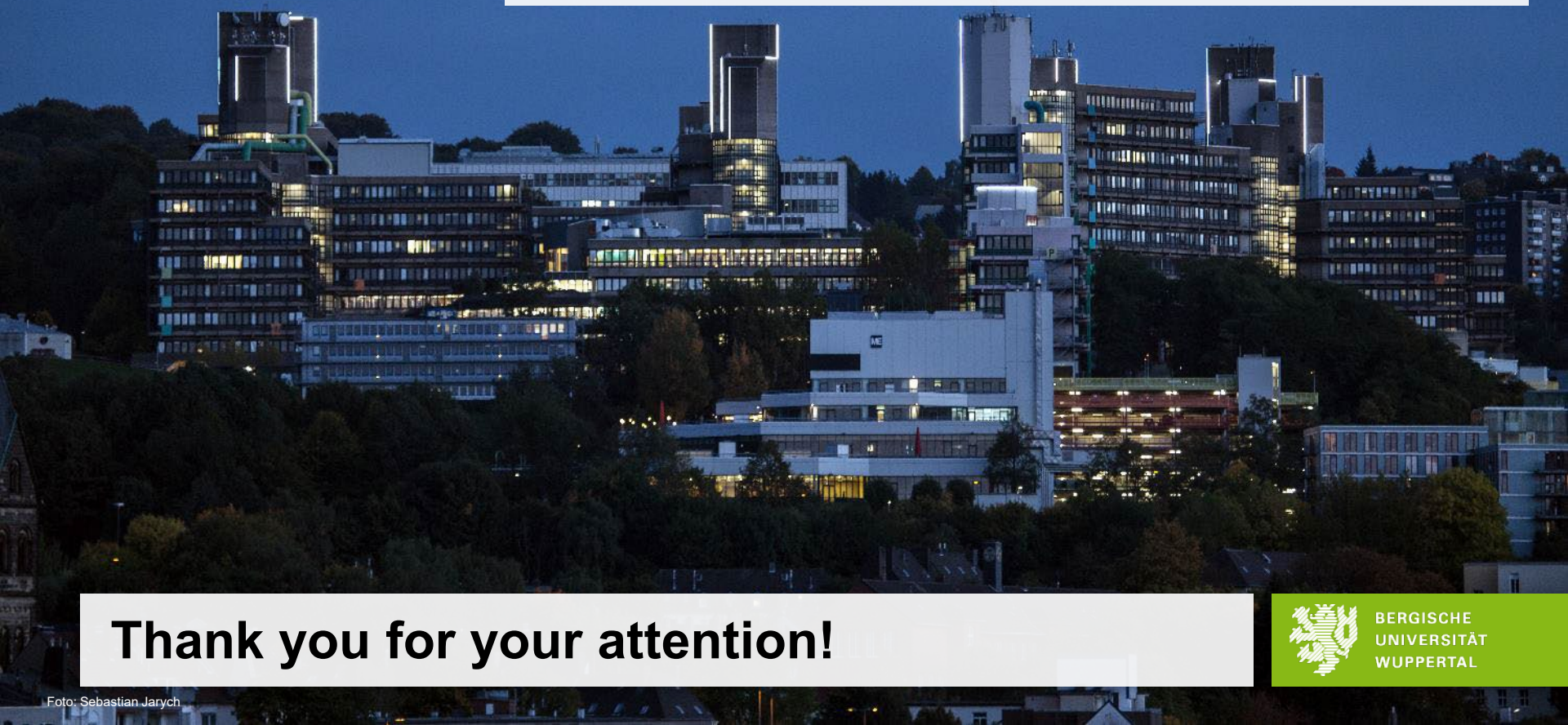
What the University of Wuppertal offers

- **TestAS exam**, the good results of which allow you to study in Wuppertal,
- application via **uni:assist**,
- pre-study and accompanying **courses in German as a foreign language of all levels**, also online and/or in the evening,
- Opportunities for **funding** through student jobs, the Deutschlandstipendium scholarship or graduation scholarships,
- **intercultural and job trainings**, an annual recruiting day, monthly excursions and contacts with local businesses,
- the university, regional companies and the city cooperate in order to place graduates in the **local job market** and **for international professionals to network with each other**,
- an International Students Team that offers **social evenings and excursions in the region**,
- an International Office that organizes **Welcome Events**,
- a Buddy Programme with a **mentor at your side**
- and much more.

Feel free to contact us: csis@uni-wuppertal.de

You would like to know more about the study programme and want to hear the voices from our students?

Join our free webinar July 10, 2025, 3.00-4.00 pm (CET).
To register, please write to the e-mail address above.



Thank you for your attention!

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Foto: Sebastian Jarych