



# Digitalized Platform for International Master Studies

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**RWTH**AACHEN  
UNIVERSITY

# Content

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- Introduction to MyScore.
- Digitalized Platform for International Master Studies – introduction, student participation, course evaluation, and challenges.
- Outlook.



# Content

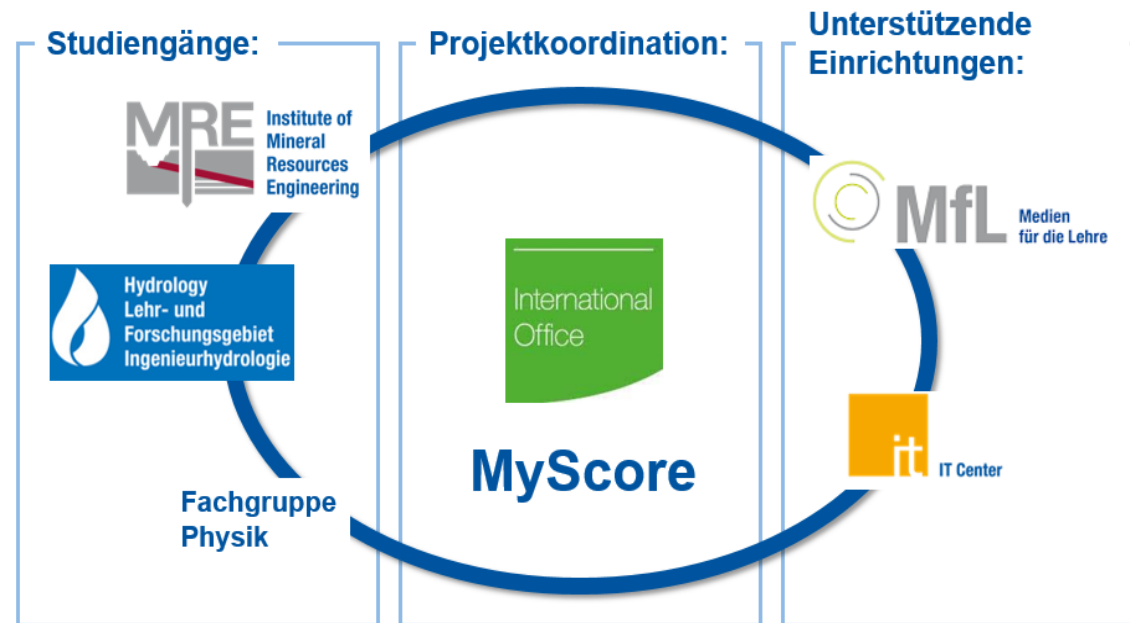
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# MyScore: Mobility System Cooperation in Higher Education

- **Goal:** to enhance the digital learning offer and make the potential of digitilization available for internationalization on a large scale.
- **Funding:** Federal Ministry of Education and Research (**BMBF**) and the German Academic Exchange Service (**DAAD**) as part of the International Mobility and Cooperation Digital (**IMKD**) program.
- **RWTH Project Partners:**



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# Digitalized Platform for International Master Studies

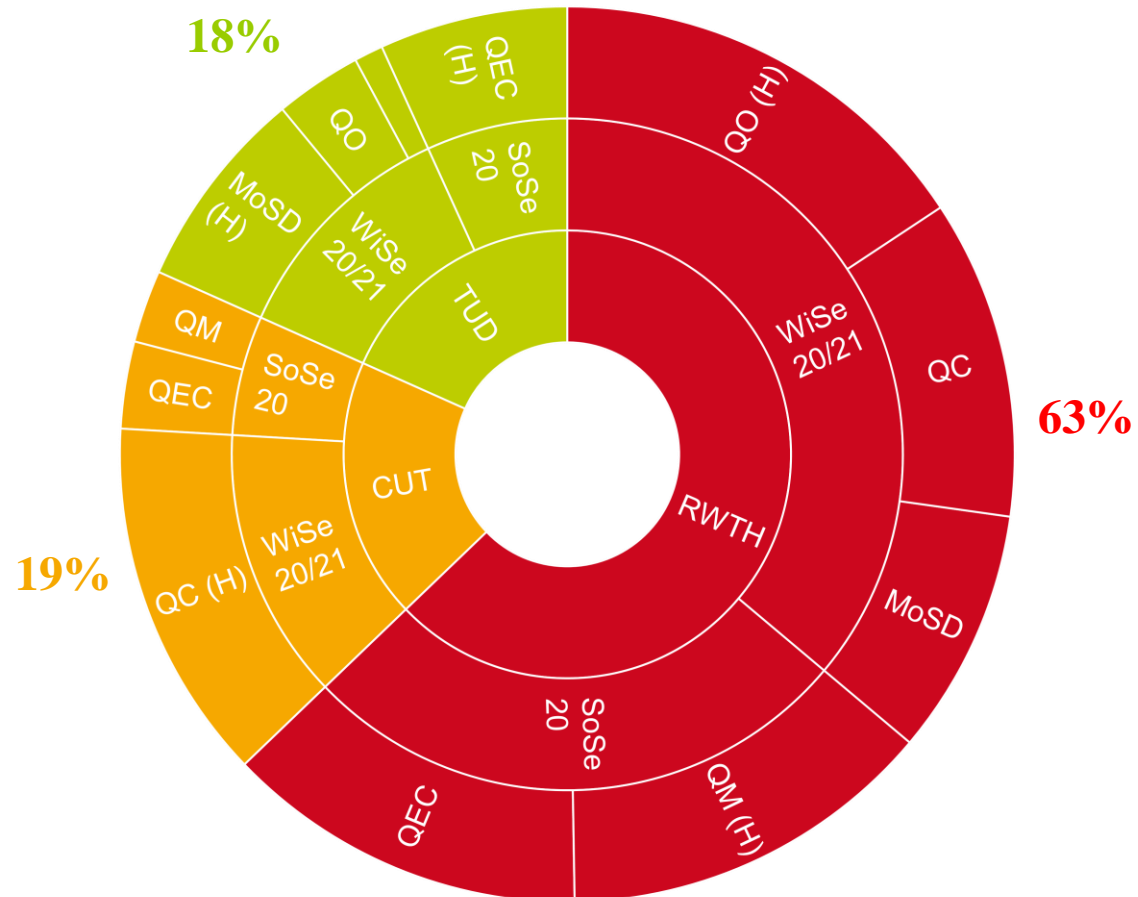
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- Distance learning and distance assessment approach.
- The MyScore Physics team of RWTH Aachen University approached two of its four IDEA League partner universities, namely Chalmers University of Technology, Sweden and Delft University of Technology, the Netherlands, and visited them in February 2020.



- Advanced selected topics on **Quantum Technology** appeared as common interest.
- Started sharing courses among all three universities from summer semester (SoSe) 2020.

# Number of participating students



RWTH – RWTH Aachen University, Germany

CUT – Chalmers University of Technology, Sweden

TUD – TU Delft, the Netherlands

SoSe – Summer semester

WiSe – Winter semester

**QM – Quantum Measurement (RWTH)**

**QEC – Quantum Error Correction (TUD)**

**MoSD – Modeling of Superconducting Devices (TUD)**

**QC – Quantum Computing (CUT)**

**QO – Quantum Optics (RWTH)**

# Course Evaluation

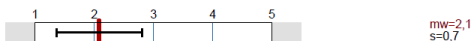
20S-13.21351 Quantum measurement

Lehrveranstaltungsnummer: 20S-13.21351  
Lehrveranstaltungstyp: Lecture/Exercise  
Erfasste Fragebögen: 6



Globalwerte

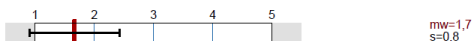
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Konzept der Vorlesung / Lecture Concept



Vermittlung und Verhalten - Vorlesung /  
Instruction and Behavior - Lecture



20W-13.22702 Quantum Computing (Chalmers University)

Lehrveranstaltungsnummer: 20W-13.22702  
Lehrveranstaltungstyp: Lecture/Exercise  
Erfasste Fragebögen: 5



Globalwerte

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Konzept der Vorlesung / Lecture Concept



Konzept der Übung / Exercise Course Concept



Vermittlung und Verhalten - Vorlesung /  
Instruction and Behavior - Lecture



Vermittlung und Verhalten - Übung / Instruction  
and Behavior - Exercise Course



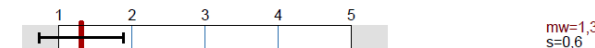
20W-13.41521 Quantum Optics

Lehrveranstaltungsnummer: 20W-13.41521  
Lehrveranstaltungstyp: Lecture/Exercise  
Erfasste Fragebögen: 11

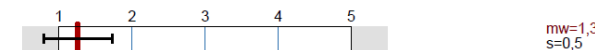


Globalwerte

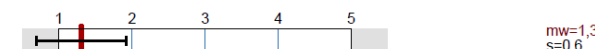
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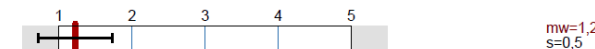
Konzept der Vorlesung / Lecture Concept



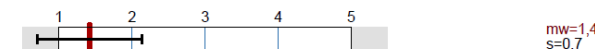
Konzept der Übung / Exercise Course Concept



Vermittlung und Verhalten - Vorlesung /  
Instruction and Behavior - Lecture



Vermittlung und Verhalten - Übung / Instruction  
and Behavior - Exercise Course



Positive evaluation reports with well-defined lecture and exercise concepts.





# Overcoming Challenges

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## ➤ **Course Material Sharing**

- In SoSe 20, it was shared using Dropbox.
- In WiSe 20/21, external students were allowed access to host university platforms.
- Other solutions (a common platform?).

## ➤ **Support (discussions / tutorials / exam) for external students**

- Local assistance at the host university.
- Restricting number of external participants.

## ➤ **Course Schedule Difference**

- (Between RWTH and TU Delft) addressed with local assistance from the participating university (RWTH).

## ➤ **Course Credit (ECTS) Difference**

- (Between RWTH and TU Delft) addressed with extra assignment for RWTH students.

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# Outlook

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- **Introducing more courses** in the Digitalized Platform for International Master Studies to reach the MyScore goal e.g. in SoSe 2021, RWTH is offering 7 courses to its partner universities.
- **Including programming or experimental labs** to make the digital offer versatile.
- **Reaching out to more universities** e.g. contacting the other two IDEA league partner universities, namely ETH Zürich and Politecnico di Milano.
- **Expanding collaboration to specializations other than Quantum Technology.**
- **On-going construction of a hybrid classroom at RWTH** to directly broadcast the lectures with interactive participation both on-site and online.
- **Developing common learning platform, sharing equal responsibilities, and minimizing administrative difficulties.**



# For more information:

Bachelor's Program in Physics

Bachelor's Program in Physics Plus

▼ Master's Program in Physics

Application for Students from Germany

Application for International Students

Entrance Qualifications

Master's College

Academic Advisor

Master's Theses

Examination Regulations

Focus of Study Quantum Technology

MyScore Physics

Bachelor's Program in Physics Education

Master's Program in Physics Education

## MyScore Physics

### Motivation

RWTH's *digitization* strategy has the objective of creating a modern, innovative, future-oriented university with attractive teaching for national and international students.

As part of RWTH's *internationalization* strategy, one of the objectives in the fields of mobility and internationalization of teaching is to increase the quality and quantity of study-related stays abroad by RWTH students.

The project **Mobility System Cooperation in Higher Education (MyScore)** at RWTH aims to harness the potential of *digitization for internationalization* on a large scale. The project has been established within the framework of a close cooperation between the International Office, the faculties and departments of Natural Resources and Waste Management Engineering, Civil Engineering and Physics and the central RWTH facility Media for Teaching (MfL) with international partners of RWTH.

### Collaboration

In the summer semester 2020, the Department of Physics of RWTH has started collaboration with two of its IDEA league partners, namely Chalmers University of Technology in Sweden and Delft University of Technology, or TU Delft, in the Netherlands, as a part of the Distance Learning and Distance Assessment initiative of the MyScore project.

Since then four new courses have been added to the RWTH Physics Master curriculum. A detailed summary of these courses including the number of students, format of sharing the lecture material, type and method of conducting the exams, etc. can be found [here](#). Although all these courses, so far, have been a part of the Master study track [Quantum Technology at RWTH](#), the long-term goal is to extend this collaboration to other [Master study tracks in Physics at RWTH](#).

Moreover, we are also interested in extending the collaboration with other Universities in the areas of Condensed Matter Physics (Theory, Experiment, Nanoelectronics, and Quantum Technology) and High Energy Physics (Theory, Experiment, and Astrophysics). If you are interested in such a collaboration, please contact the MyScore RWTH Physics team - [Dr. Stefan Roth](#), [Dr. Paramita Dey](#), [Dr. Anand Sharma](#), and [Dr. Thomas Radermacher](#) (former member).

<https://www.physik.rwth-aachen.de/myscore>

We are looking forward to hearing from you!



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# Acknowledgments

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Deutscher Akademischer Austauschdienst  
German Academic Exchange Service

GEFÖRDERT VOM



Bundesministerium  
für Bildung  
und Forschung

➤ MyScore Physics Team:

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Dr. Anand Sharma: [sharma@physik.rwth-aachen.de](mailto:sharma@physik.rwth-aachen.de)

Dr. Thomas Radermacher (former member): [radermacher@physik.rwth-aachen.de](mailto:radermacher@physik.rwth-aachen.de)

## Thank you for listening!

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