University of Stuttgart
SC SimTech
Cluster of Exzellence in Simulation Technology

Graduate Academy SimTech

Johannes Kästner,
Head of GS SimTech

SimTech

Agenda

1. About us.
2. Concept and regulations.
3. Questions.

About us

Head and Coordination

Prof. Dr. Johannes Kästner

Head of GS SimTech

Katharina Fuchs

Coordinator GS SimTech

Almut Meyer zu Schwabedissen

Equality and diversity manager

About us

Coordination

- Coordination of your PhD “life cycle”
  - Process steps (advise during your registration as doctoral student, Milestone Presentation, Stay Abroad, Training Program, Submission of thesis and oral exam)

- Communication via
  - Confluence
  - GS-Simtech@ (Email distribution list)
  - Email: Graduiertenschule@simtech.uni-stuttgart.de / katharina.fuchs@simtech.uni-stuttgart.de
  - Office hours: Mon, Tue

(Short Reminder: Poster Session and Booklet
Poster Session: https://www.surveymonkey.de/r/postersessionbadboll
Booklet: events@simtech.uni-stuttgart.de until 27 May)

Katharina Fuchs

Coordinator GS SimTech

About us

Equality and diversity manager

- Early Career Counselling
- Recruiting and Onboarding Processes
- Internationalisation
- Administrative Cooperation (University, IntCDC, MPI)

Almut Meyer zu Schwabedissen

Equality and diversity manager
Early Career Management

About us: Development of GS SimTech

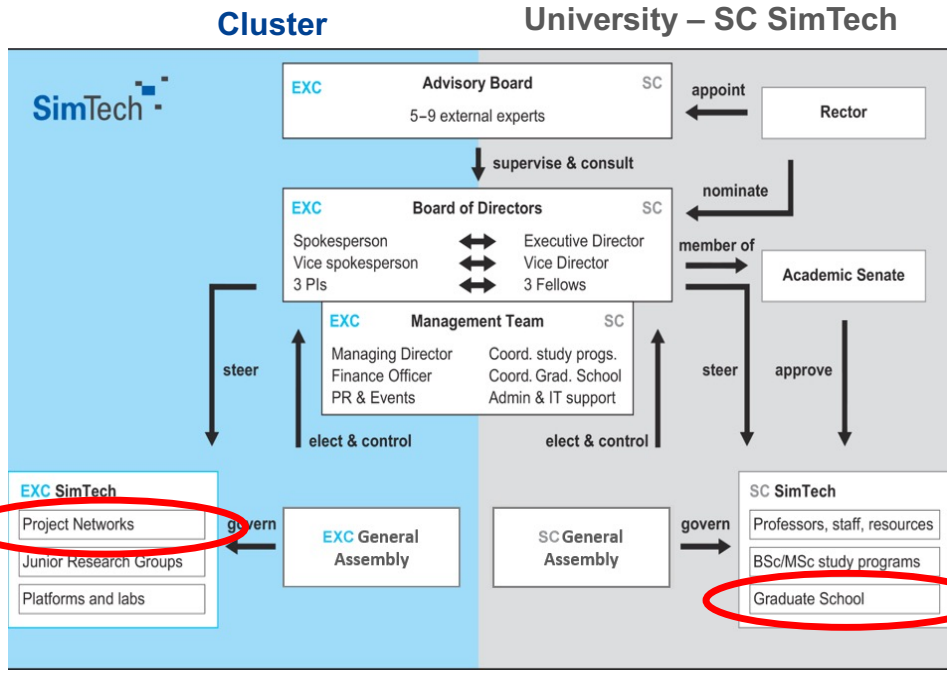
- In total: about 161 PhD students

- Almost all PhD students are employees of Univ. of Stuttgart under an E13 contract.
- You have several roles:
  - Employee
  - (SimTech financed researcher)
  - PhD student

Here, we only talk about your role as PhD student in the GS SimTech.

Basic Understanding:
Difference Between SC & EXC

- Stuttgart Center of Simulation Science (SC) faculty-like center acts as “container” for EXCs.
- EXC 2075 member assembly and directors decide on all scientific and budgetary matters.
- SC decides on academic matters (PhD, habilitation, professorships, study program).
- Alignment of EXC and university governance, but roles and responsibilities are strictly different.



- **SC SimTech has the same role(s) as a faculty**
- **PNs are the entities in which EXC research is performed**

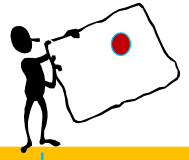
GS SimTech: Overview of Educational Concept

Acceptance at GS SimTech

Milestone Presentation

1st phase of education

2nd phase of education



12-18 months

in total 5 (7) years maximum

doctoral examination procedure

- subject specific courses (6-12 ECTS)
- Key Qualifications (1 course)
- 1 GS unit
- Status Seminars

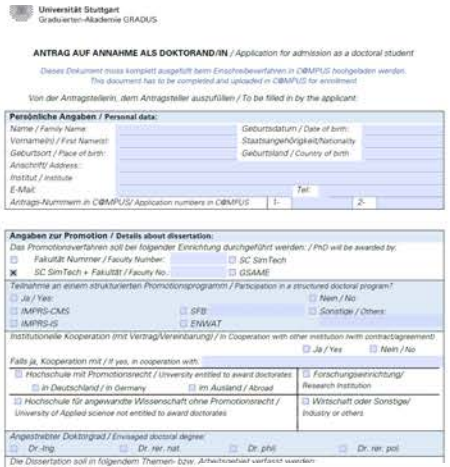
- 2 GS units
- Stay abroad
- Status Seminars

Acceptance as doctoral candidate

GS SimTech: Admission to the GS

- **Application** for admission at GRADUS.
- In most cases jointly with a “classical” Fakultät (faculty).
- Your **co-advisor** supports you in your interdisciplinary network and accompanies you until your MSP. S/he serves as second examiner in your MSP.

  The co-advisor needs to be identified and reported to GS SimTech.
- Every PhD student is assigned to one **project network** (PN).
- **“Promotionsvereinbarung”** (agreement on doctoral studies).


Universität Stuttgart
Graduierten-Akademie GRADUS

ANTRAG AUF ANNAHME ALS DOKTORAND/IN / Application for admission as a doctoral student

Dieses Dokument muss komplett ausgefüllt beim Einschreibeverfahren in CAMPUS hochgeladen werden.
This document has to be completed and uploaded in CAMPUS for enrollment.

Von der Antragstellerin, dem Antragsteller auszufüllen / To be filled in by the applicant:

Persönliche Angaben / Personal data:

Name / Family Name:
Vorname(n) / First Name(s):
Geburtsort / Place of birth:
Geburtsdatum / Date of birth:
Staatsangehörigkeit/Nationality
Geburtsland / Country of birth
Anschrift/ Address:
Institut / Institute
E-Mail:
Tel.
Antrags-Nummern in CAMPUS/ Application numbers in CAMPUS

Angaben zur Promotion / Details about dissertation:

Das Promotionsverfahren soll bei folgender Einrichtung durchgeführt werden: / PhD will be awarded by:
Fakultät Nummer / Faculty Number:
SC SimTech
SC SimTech + Fakultät / Faculty No.:
GSAME

Teilnahme an einem strukturierten Promotionsprogramm / Participation in a structured doctoral program?
Ja / Yes:
Nein / No
IMPRS-CMS
SFB
Sonstige / Others:
IMPRS-IS
ENWAT

Institutionelle Kooperation (mit Vertrag/Vereinbarung)! / In Cooperation with other institution (with contract/agreement)
Ja / Yes
Nein / No
Falls ja, Kooperation mit / If yes, in cooperation with:

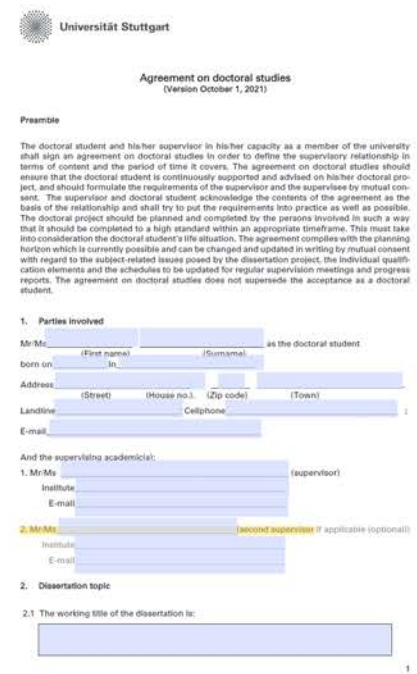
Hochschule mit Promotionsrecht / University entitled to award doctorates
in Deutschland / in Germany
im Ausland / Abroad
Forschungseinrichtung/ Research Institution
Hochschule für angewandte Wissenschaft ohne Promotionsrecht / University of Applied science not entitled to award doctorates
Wirtschaft oder Sonstige/ Industry or others

Angestrebter Doktorgrad / Envisaged doctoral degree:
Dr.-Ing.
Dr. rer. nat.
Dr. phil
Dr. rer. pol

Die Dissertation soll in folgendem Themen- bzw. Arbeitsgebiet verfasst werden:
The topic or field of work for the planned dissertation:

Wurden bereits andere Promotionsversuche unte
Ja, eine Erklärung gemäß Promotionsordnung
Yes, a statement in accordance with the doctoral regu

Ich bestätige die Richtigkeit der Angaben und verpflich
nach dieser Antragstellung einlete bzw. eingehe, unver
I herewith confirm that all details are correct. I will imm
starting other doctoral degree studies after this applicat


Universität Stuttgart

Agreement on doctoral studies
(Version October 1, 2021)

Preamble

The doctoral student and his/her supervisor in his/her capacity as a member of the university shall sign an agreement on doctoral studies in order to define the supervisory relationship in terms of content and the period of time it covers. The agreement on doctoral studies should ensure that the doctoral student is continuously supported and advised on his/her doctoral project, and should formulate the requirements of the supervisor and the supervisee by mutual consent. The supervisor and doctoral student acknowledge the contents of the agreement as the basis of the relationship and shall try to put the requirements into practice as well as possible. The doctoral project should be planned and completed by the persons involved in such a way that it should be completed to a high standard within an appropriate timeframe. This must take into consideration the doctoral student's life situation. The agreement complies with the planning horizon which is currently possible and can be changed and updated in writing by mutual consent with regard to the subject-related issues posed by the dissertation project, the individual qualification elements and the schedules to be updated for regular supervision meetings and progress reports. The agreement on doctoral studies does not supersede the acceptance as a doctoral student.

1. Parties involved

Mr/Ms (First name) (Surname) as the doctoral student
born on in
Address (Street) (House no.) (Zip code) (Town)
Landline Cellphone
E-mail

And the supervising academic(s):
1. Mr/Ms (supervisor)
Institute
E-mail
2. Mr/Ms (second supervisor if applicable (optional))
Institute
E-mail

2. Dissertation topic

2.1 The working title of the dissertation is:

1

GS SimTech: *Advisor Concept*

- Supervision by at least two advisors of SimTech
- Role of co-advisor is individual. Generally, supporting an interdisciplinary view and network in SimTech. He/she mainly advises you on the Milestone Presentation, but will usually not provide a report on your work.

- Please choose lectures and GS seminars, time and place of your stay abroad, etc. in agreement with your main advisor.

- The main advisor confirms the compliance with GS regulations twice:
  - before your milestone presentation and
  - with the initiation of the doctoral examination procedure.

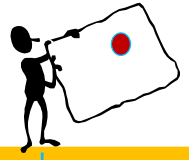
GS SimTech: Overview of Educational Concept

Acceptance at GS SimTech

Milestone Presentation

1st phase of education

2nd phase of education



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Acceptance as doctoral candidate

Glossary of GS SimTech Training Program

please note: the Doctoral Degree Regulations require at least 9 credit points

	What does this entail?	Who decides?	Number of Credit Points
Subject-specific courses	regular courses offered by the Uni Stuttgart (or from suitable courses outside the University of Stuttgart); Ideally completed before MSP	advisor and doctoral student specified in the doctoral supervision agreement	At least 6 CP
Key qualifications	To acquire interdisciplinary qualifications e.g. chosen from the program offered by GRADUS	Doctoral student (and advisor)	At least 1 course (3 CP)

Glossary of GS SimTech Training Program - continued

	What does this entail?	Who decides?	Number of Credit Points
Graduate School Units (to promote interdisciplinary networking, to expand scientific horizon)	a) GS SimTech seminar b) career counseling, mentoring schemes as well as industry connections (“Academy Program” of GS SimTech)	Doctoral student	3 offers in total - At least 1 GS Seminar - at least one prior to MSP *Usually no credit points assigned*
Presentation of research results	annual poster presentation, possibly accompanied by a lecture, during the annual doctoral seminars (which may take place as part of the annual status seminar of SC SimTech)	n.a.	n.a.

Graduate School Units

for example summer term 2022

GS Seminar:

- Novel methods in simulation science, Paul Bürkner, Kristyna Pluhackova, Benjamin Unger
  Thursdays, 3:45 pm to 5:15 pm in V 7.04.

Further Courses:

- July 4-6, 2022, Status Seminar Bad Boll (Participation is obligatory.
  Presentation of own PhD project).
- July 11-15, 2022, Summer School (can count as GS unit).
- August 5-7, 2022: SimTech-Weekend-Retreat 2022 (can count as GS unit).
- Coursera (featured online courses, further information will be announced soon).

Further possibilities outside of mandatory program:

Language Courses: German language course offerings, tailored to your individual needs.

Graduate School Units

for example summer term 2022

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- Coursera (featured online cou information will be announced soon).

The seminars are selected by the Head/ Coordination of the GS and released on our homepage at the beginning of a new term. Ideas and initiatives for GS seminars are most welcome!

Further possibilities outside of mandatory program:

Language Courses: German language course offerings, tailored to your individual needs.

SimTech Colloquium

(bi-weekly or so …)

- Participation is strongly encouraged!

- The latest program will be sent out via e-mail.
- You can also find the dates and topics if you check the SimTech Website as well as the calendar entries on Confluence.
- Summer term 2022 (4 pm in V7.01):
  - 11 May Dieter Schmalstieg → 13 July
  - 18 May Christian Matthias Schlepütz
  - 22 June Tobias Pfaff (online)

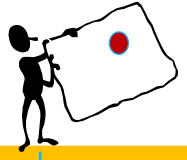
GS SimTech: Overview of Educational Concept

Acceptance at GS SimTech

Milestone Presentation

1st phase of education

2nd phase of education



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Acceptance as doctoral candidate

GS SimTech: Milestone and 2nd Phase of Educational Program

Milestone Presentation (12−18 months after the beginning of your PhD):

- **Compliance** with GS regulations must be sent to the GS coordination.
- Send Milestone Report (about 10 pages) to GS and both advisors.
- **Public talk** (30 min) + non-public oral exam/discussion (~60 min) with **both advisors**.
- Send protocol with the result to the GS coordination.

2nd phase of Education Program:

- Additional 2 GS units.
- Participation in the annual doctoral seminar/status seminar.
- **Stay abroad** (up to 3 months):
  - Time and place in agreement with your advisor.
  - Some travel funding available from EXC SimTech (currently fully funded for every GS SimTech student).

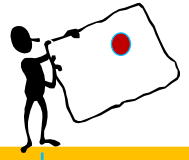
GS SimTech: Overview of Educational Concept

Acceptance at GS SimTech

Milestone Presentation

1st phase of education

2nd phase of education



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Acceptance as doctoral candidate

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GS SimTech: Doctoral Examination Procedure

- **Admission** to the examination via the faculty.
- Cumulative dissertation is possible (rules of the participating faculty apply).
- At least one **external examiner** (outside of University of Stuttgart)!
  Compliance with GS regulations must be sent to the GS coordination.
  Submission of the thesis to GS and the faculty.
- **Oral exam** + talk of 30 minutes before your exam (open to all employees and students of the University of Stuttgart).
- Doctoral certificate.
  You graduate in SimTech with participation of faculty xx.

GS SimTech: Information

- Too much information?
- Don‘t worry. You can always contact us.
- Via e-mail: graduiertenschule@simtech.uni-stuttgart.de
- Or call us directly:
- Katharina Fuchs: 0711 685 60115
- Almut Meyer zu Schwabedissen: 0711 685 60104

- And if you wish to read up on this in your own time, you will find all the information and forms on our internal SimTech webpage in confluence (https://wisman.izus.uni-stuttgart.de/display/SimTechGS/GS-SimTech+-+english)

Still Lost?

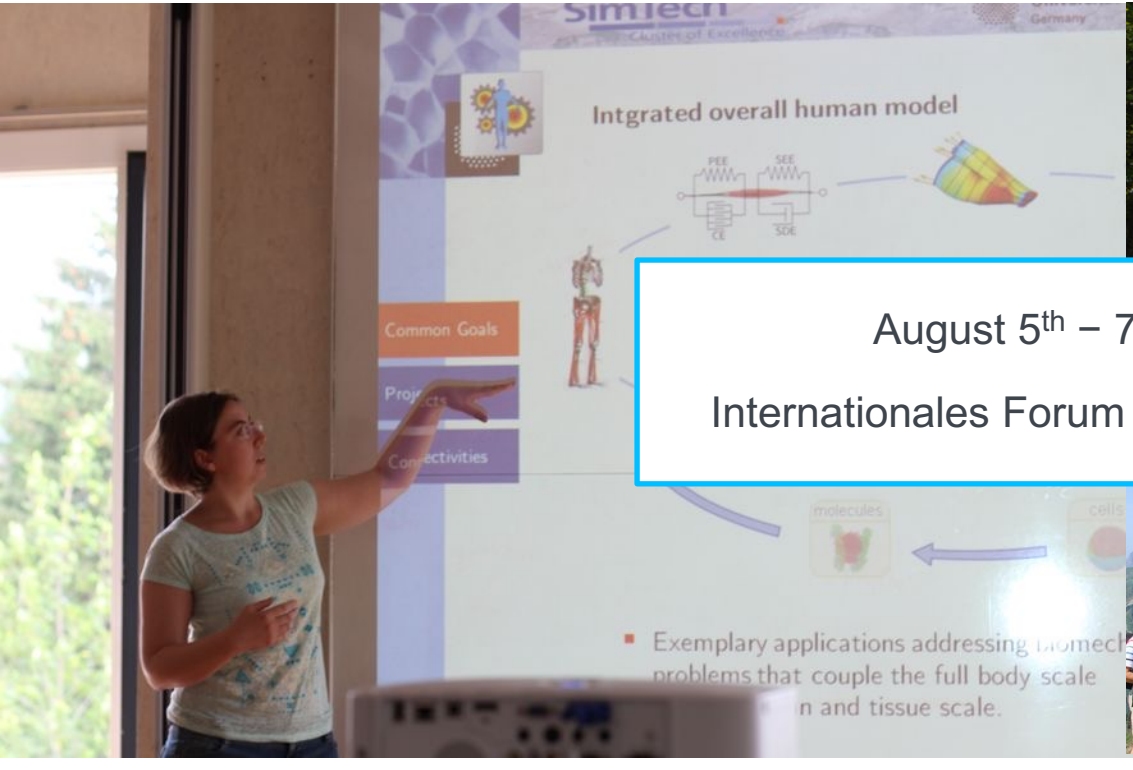
- Here are some more ressources you can tap into:

Ask your advisor(s)
Ask the fellow GS SimTech PhD students in your group
Ask the fellow PhD students in your PN
Ask the SimTech Doctoral Spokespersons
Ask the GS Coordination
Ask the head of the GS SimTech

Reviving a Tradition: SimTech-Weekend-Retreat

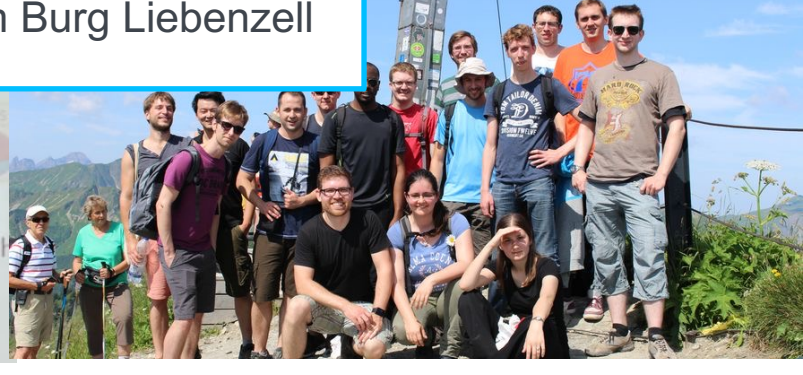
Retrospect: has taken place each year before Covid-19

eligible as GS Seminar / GS unit



August 5th – 7th 2022

Internationales Forum Burg Liebenzell



At the End …

… we ask you to:

- Please inform us in time about any changes or activities (e.g. milestone presentations)!
- Think about further GS activities. Ideas/input is very encouraged!

- If you have any questions – please feel free to ask!

- Katharina Fuchs / Almut Meyer zu Schwabedissen / Johannes Kästner: graduiertenschule@simtech.uni-stuttgart.de, Tel: 0711 / 685-60115 (Katharina)

Thank you!

Do you have any questions?
Please do not hesitate to ask.

If you have ideas to share,
we appreciate your input!

Some Terms and Abbreviations

- **Confluence**: Our SimTech-internal website:
  https://wisman.izus.uni-stuttgart.de/display/SimTech/SimTech+Startseite
- **DaRUS**: the Data Repository of the University of Stuttgart:
  where your research data should be deposited and published.

  → Information offers are in the planning
- **PUMA**: (“Akademisches Publikationsmanagement”) management tool for scientific publications and bookmarks

  https://wisman.izus.uni-stuttgart.de/display/SimTech/Publication+notification+workflow+for+SimTech

SimTech Project Networks (PNs)

- PN 1: Data-Integrated Models and Methods for Multiphase Fluid Dynamics
- PN 2: In Silico Models of Coupled Biological Systems
- PN 3: Data-Integrated Model Reduction for Particles and Continua
- PN 4: Data-Integrated Control System Design with Guarantees
- PN 5: On-the-fly Model Modification, Error Control, and Simulation Adaptivity
- PN 6: Machine Learning for Simulation
- PN 7: Adaptive Simulation and Interaction
- PN 8: Accelerating Simulation by Quantum Computing