

HGS-HIRe *for FAIR*

Helmholtz Graduate School for Hadron and Ion Research

*The Graduate School for PhD Students
Working at FAIR*

NICA-FAIR Symposium, November 16, 2016 @ GSI

HGS-HIRe *for FAIR*

Helmholtz Graduate School for Hadron and Ion Research

..... is a joint endeavor of the GSI Helmholtzzentrum für Schwerionenforschung located in Darmstadt, the universities at Darmstadt, Frankfurt, Giessen, Heidelberg and Mainz together with FIAS to promote and support structured doctoral education for research associated with GSI and FAIR.

*Helmholtz
Association*

GSI

Universities



HGS-HIRe

Students

Supervisors

Academic & Scientific Partners

*Johann Wolfgang Goethe
Universität Frankfurt*

FAIR / GSI

*Ruprecht-Karls-Universität
Heidelberg*

H-QM

HI Jena

EMMI

HGS-HIRe *for FAIR*
Helmholtz Graduate School for Hadron and Ion Research

PhD Students

FRRC

HIC for FAIR

HI Mainz

*Justus-Liebig-Universität
Gießen*

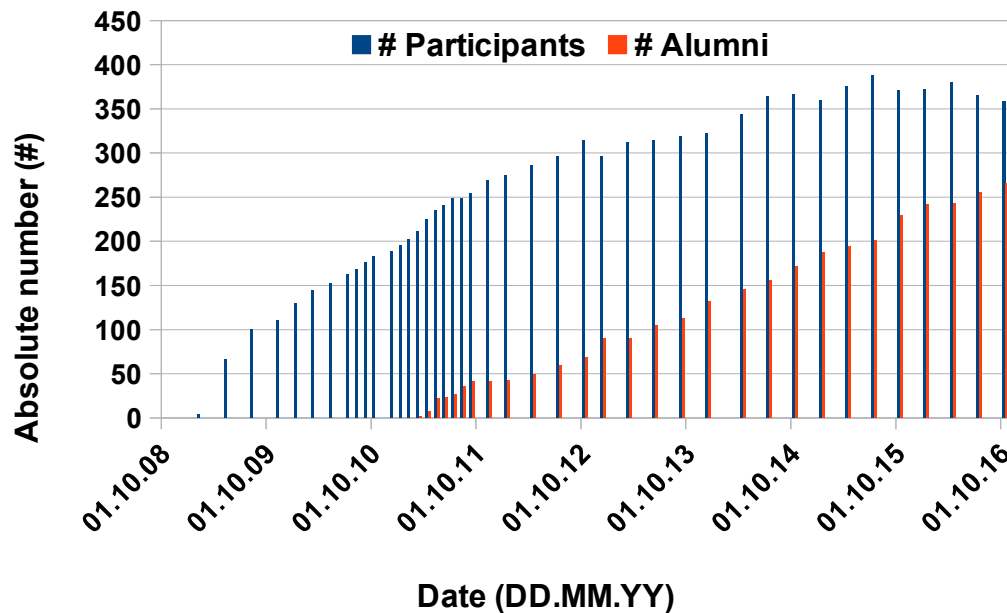
*Technische Universität
Darmstadt*

*Johannes Gutenberg-Universität
Mainz*

General Facts & Figures

- ◆ Started in October 2008, currently 350 participants and 270 alumni
- ◆ More than 190 participants & alumni (30%) of international origin
- ◆ 124 female participants & alumni (20%) in HGS-HIRe

Development of participants in HGS-HIRe: Distribution of international participants:

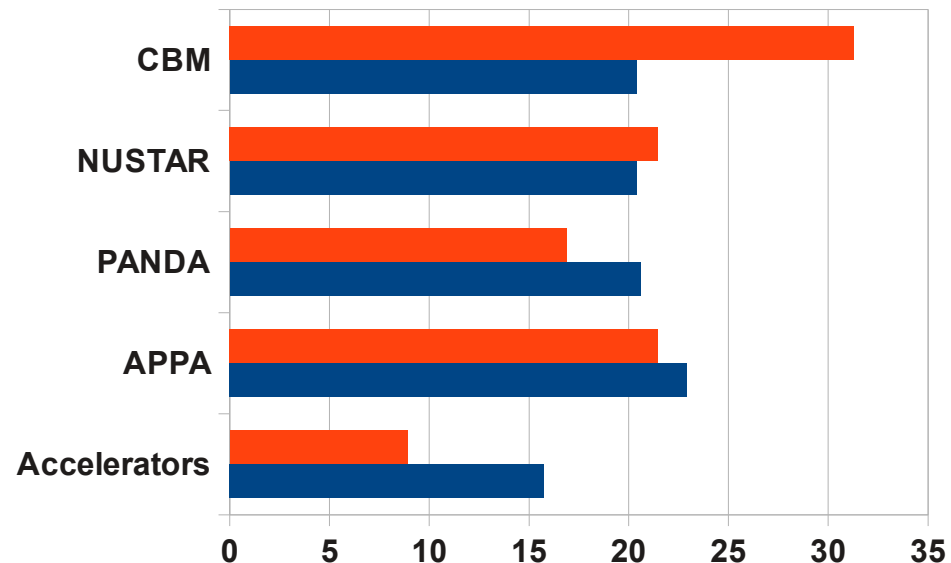
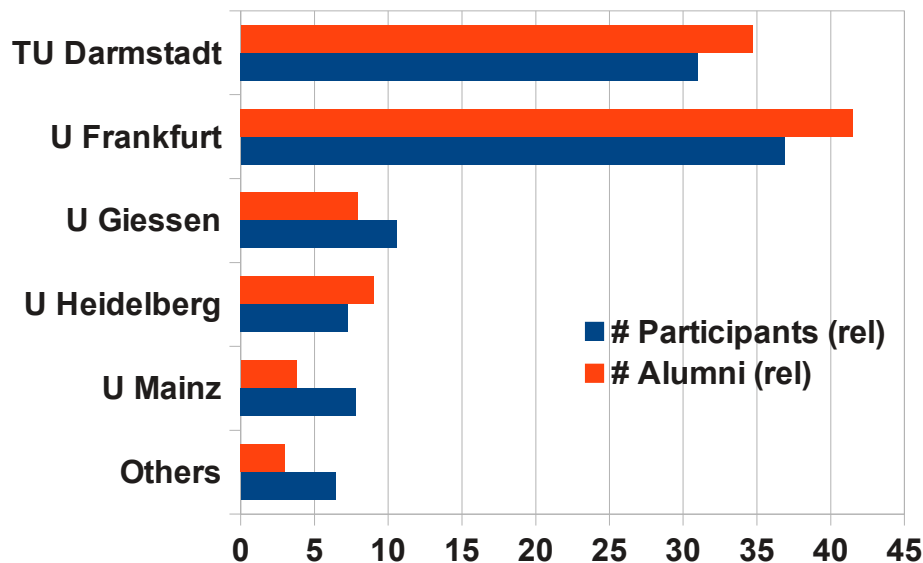


General Facts & Figures

- ◆ 146 doctoral students currently (2016) funded by GSI
- ◆ Participating students in 10 fields of research relevant for GSI & FAIR (accelerator physics, atomic & plasma physics, biophysics, hadron physics, hot & dense matter, nuclear structure & nuclear astrophysics, materials research, computational science)

Distribution with respect to universities...

...and fields of research:



Pillars of the HGS-HIRe Structure

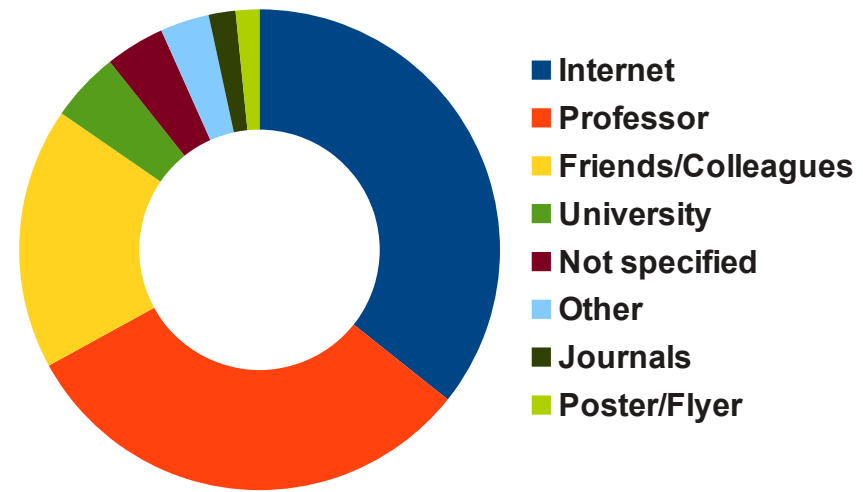
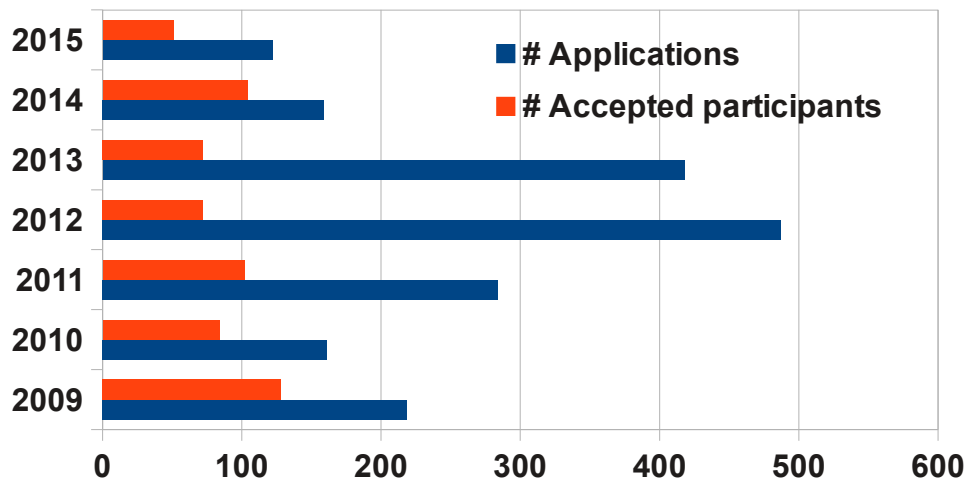
- 1. Common standards for application and selection of doctoral students*
- 2. Structured doctoral education program*
- 3. Scientific travel program for doctoral students*
- 4. Contact and care center handling administrative and social aspects*
- 5. Public outreach activities with strong involvement of participants*

1. Application & Selection of Students

- ◆ *Advertisement through electronic platforms and other media*
- ◆ *Common standards for application and selection of doctoral students*
- ◆ *More than 35% of participants finished Diploma/Master at external universities*

HGS-HiRe applicants...

...learned about our graduate school via:



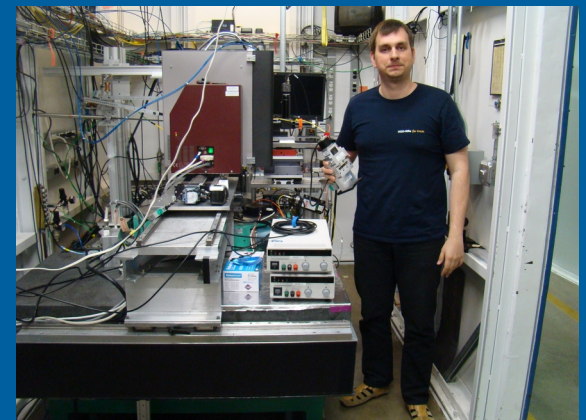
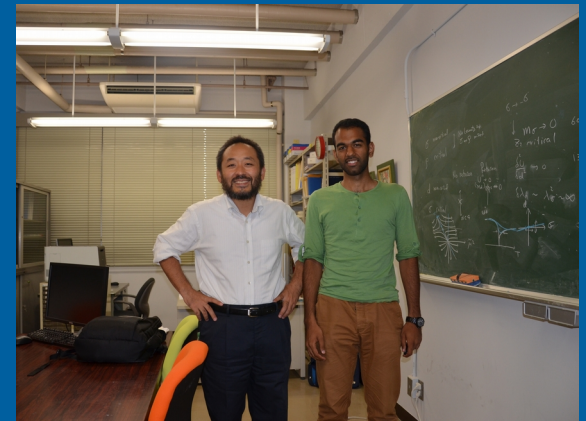
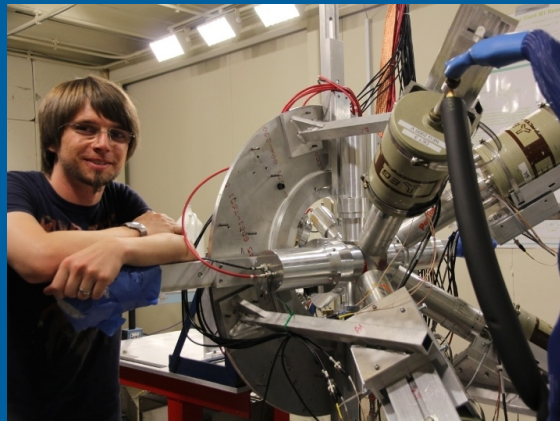
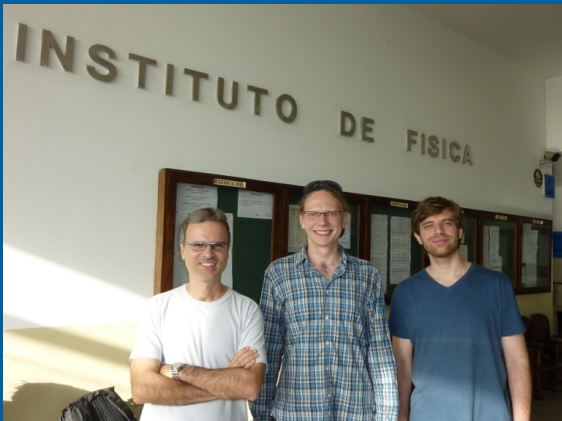
2. Structured Doctoral Education Program

- ◆ Scientific education by cross-disciplinary courses (49 lecture weeks) and specialized courses (18 power weeks)
- ◆ Structured transferable skills education (78 soft skills courses)
- ◆ HGS-HIRe Special Events, such as Helmholtz-Rosatom School, Graduate Days, Perspectives events, International Summer Student Program at GSI



3. Scientific Travel Program for Participants

- ◆ Individual travel budget for doctoral students to attend conferences, workshops etc.
- ◆ HGS-HIRe Abroad Program: 47 participants so far



4. Contact and Care Center

Primary contact point for doctoral students, supervisors and administration:

- ◆ *Central assistance with arrangement & administration of doctoral funding programs, e.g. R & D funding program of GSI (strategic cooperations with universities)*

146 doctoral students currently funded by GSI

- ◆ *Administration of all 350+ individual PhD committees*

- ◆ *Help with other administrative and social aspects*

e.g. students status issues and visa/residence permits etc.

- ◆ *HGS-HIRe Self-Service Center and comprehensive information at www.hgs-hire.de*



5. Public Outreach Activities

- ◆ *Primary School Program in collaboration with the Polytechnische Gesellschaft*
- ◆ *National and international Masterclass Program within the BMBF-initiative "Netzwerk Teilchenphysik"*
- ◆ *Exhibitions "Die Weltmaschine" (2010/2011) and "Tag der Weltmaschine" (2011)*
- ◆ *Participation in the campaign "Hessen schafft Wissen", e.g. experimental stations at "Hessentag" (2013 ff.) and "Night of Science" (2012 ff.) at Frankfurt University*



HGS-HIRe Team

Spokesperson:

Prof. Harald Appelshäuser



Managing Director:

Prof. Henner Büsching

Scientific Coordinator:

Dr. Gerhard Burau



Administrative Assistants:

Johanna Dilley

Silke Schneider

Participant Representative:

Philipp Sitzmann (GUF/GSI)



HGS-HIRe Graduate Days



5th Anniversary of HGS-HIRe (2013)

Supplementary Material

List of National & International Partners

Academic & Scientific Partners:

*FAIR & GSI Helmholtzzentrum für Schwerionenphysik
Technische Universität Darmstadt
Goethe-Universität Frankfurt
Justus-Liebig-Universität Gießen
Ruprecht-Karls-Universität Heidelberg
Johannes-Gutenberg-Universität Mainz*

*ExtreMe Matter Institute (EMMI)
Frankfurt Institute for Advanced Studies (FIAS)
Helmholtz Institute Jena (HIJ)
Helmholtz Institute Mainz (HIM)
Helmholtz International Center for FAIR (HIC for FAIR)
Helmholtz Research School for Quark Matter Studies (H-QM)*

*FAIR Russia Research Center (FRRC), Russia
SUBATEC, Ecole de Mines de Nantes, France*

Associated Partners:

*Baruch College, New York, USA
Gettysburg College, USA
Graduate University of Chinese
Academy of Sciences, China
Kent State University, USA
University of Lund, Sweden
University of Turin, Italy*

*University of Jena
University of Kassel
University of Köln
University of Marburg
University of Münster
University of Erlangen-Nürnberg
University of Tübingen
University of Wuppertal*

What is structured doctoral education in HGS-HIRe ?

HGS-HIRe: Program



- *Common standards for application*
- *Specialized scientific courses (pw)*
- *Cross-disciplinary courses (lw)*
- *Soft skills education*
- *Special events, as summer or winter schools, and specific workshops*

- *Scientific travel program for participating PhD students*
- *Contact and care center handling administrative and social aspects*
- *Individual PhD Committees*

Here is the deal...



You have the right to participate in HGS-HIRe events

You have the backing of HGS-HIRe

You benefit from the structures HGS-HIRe established

You can make use of your travel money

You have to join at least one lecture week (or power week) per year

You have to join at least one soft skills course per year

You have to meet with your PhD committee regularly

You have to write a good thesis :-)

PhD Committees

Supervisor

External Supervisor

Mentor

Meet every six months

Write protocol

Program : Your interest



www.hgs-hire.de/program/calendar/index.shtml

Soft Skills Training

Integrated series of three courses:

- 1) Making an Impact as an Effective Researcher*
- 2) Leading Teams in a Research Environment*
- 3) Leadership and Career Development*

One course per year of participation

2nd course after 1st, 3rd after 2nd

www.hgs-hire.de/program/softskill/overview.shtml

Upcoming Events

www.hgs-hire.de/program/calendar/

Travelmoney

Currently 1000 Euro / year

You decide

You apply

Your supervisor approves

Use the

HGS-HIRe Self-Service Center

for applications!

Scholarship

*HGS-HIRe does not have own
scholarships!*

*We help to arrange scholarships for
GSI R&D / GP-HIR and HIC for FAIR*