



# Research in Germany



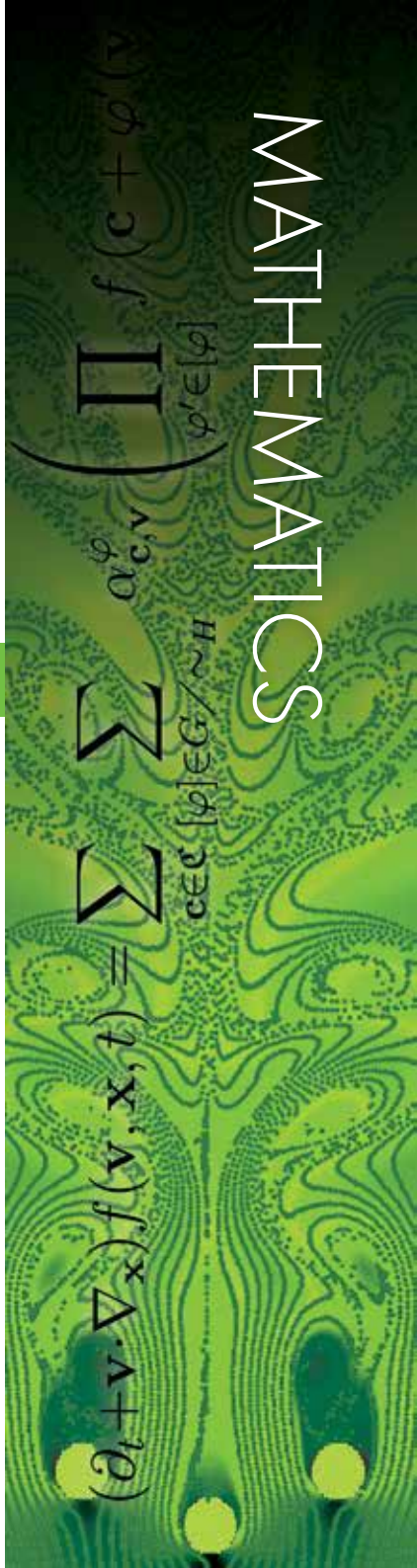
AN INITIATIVE OF THE  
Federal Ministry  
of Education  
and Research

Research in  
Germany



Land of Ideas

[www.research-in-germany.org](http://www.research-in-germany.org)



MATHEMATICS

$$(\partial_t + v \cdot \nabla_x) f(v, x, t) = \sum_{c \in C} \sum_{|\phi| \in G} \sum_H \alpha_{c,v}^\phi \prod_{\phi' \in [\phi]} f(c + \phi'(v))$$

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# Research in Germany

MATHEMATICS



# PREFACE














This brochure provides a first insight into research in Germany in the field of mathematics.

Mathematical research in Germany is primarily conducted at universities but also at non-university research institutions. Almost all universities and many universities of applied sciences host a mathematical research section with smaller or larger working groups. Most mathematics departments refer to mathematics in a broad sense and cover a wide range of mathematical subdisciplines. Many departments have nowadays developed a more focused research profile concentrating in priority areas of mathematical research.

This brochure is intended to give an initial overview. The following map and tables highlight research consortia and graduate training programmes at universities and non-university research institutes with a main focus on mathematics.

On top of this, there is a lot more to discover: e.g. the DFG funds a multitude of individual or joint projects in the area of mathematics through individual grants. Towards the end of this brochure, you will find a link to the online database GEPRIS that provides an overview of all DFG funded research projects. You will also find additional important links for further information about programmes in the field of mathematics and profiles of German universities and research institutions.

We invite you to explore the many opportunities that Germany has to offer and welcome your feedback.

- |  |   |
|--|---|
|  Graduate Schools  |  Helmholtz Graduate Schools                |
|  Research Training Groups  |  International Max Planck Research Schools |
|  International Research Training Groups  |  Fraunhofer Institutes                     |
|  Integrated Research Training Groups in Clusters of Excellence                     |  Leibniz Institutes                        |
|  Integrated Research Training Groups in Collaborative Research Centres/Transregios |  Max Planck Institutes                     |
|  Clusters of Excellence  |  Others                                    |
|  Collaborative Research Centres/Transregios  |   |

DFG funded Priority Programmes and Research Units are not shown on the map since they are not necessarily located at a single location; they are listed on pages 13 and 15.

# OVERVIEW



# **CENTRES** OF RESEARCH

- FUNDED BY DFG -










**Clusters of Excellence (EXC)** were established at universities in the framework of the German Excellence Initiative and promote cutting-edge research. Their objective is to engage in scientific networking and collaboration in research fields of particular promise for the future. They also offer excellent training conditions and career opportunities for early career researchers.

**Collaborative Research Centres (CRC)** are organisational units established at universities which enable researchers to pursue an outstanding research programme crossing the boundaries of disciplines, institutes, departments and faculties. The traditional Collaborative Research Centre is generally applied for by one university and is conducted by researchers of that university. Early career support is a key objective of the Collaborative Research Centre Programme. Early career researchers may get involved in a CRC in numerous ways, for example within the framework of an Integrated Research Training Group. Collaborative Research Centres are funded for a period of up to 12 years.

**Transregios (TRR)** are Collaborative Research Centres in which up to three universities collaborate with each other and submit a joint application. The contributions of the cooperative partners are essential, complementary and synergetic to the joint research objective. Funding facilitates close, nationwide collaboration among the participating universities and researchers, as well as networking and shared use of resources. There is also the option of international Transregios.



## CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
<b>CLUSTERS OF EXCELLENCE</b>				
 Bonn	Rheinische Friedrich-Wilhelms-Universität Bonn	<b>Mathematics: Foundations, Models, Applications – Hausdorff Center for Mathematics (EXC 59)</b>	2006	<a href="http://www.hausdorff-center.uni-bonn.de">www.hausdorff-center.uni-bonn.de</a>
<b>COLLABORATIVE RESEARCH CENTRES</b>				
 Berlin	Freie Universität Berlin	<b>Scaling Cascades in Complex Systems (CRC 1114)</b>	2014	<a href="http://www.sfb1114.de">www.sfb1114.de</a>
 Bielefeld	Universität Bielefeld	<b>Taming Uncertainty and Profiting from Randomness and Low Regularity in Analysis, Stochastics and their Applications (CRC 1283)</b>	2017	<a href="http://www.sfb1283.uni-bielefeld.de">www.sfb1283.uni-bielefeld.de</a>
 Bonn	Rheinische Friedrich-Wilhelms-Universität Bonn	<b>The Mathematics of Emergent Effects (CRC 1060)</b>	2012	<a href="http://sfb1060.iam.uni-bonn.de">http://sfb1060.iam.uni-bonn.de</a>
 Karlsruhe	Karlsruher Institut für Technologie	<b>Wave Phenomena: Analysis and Numerics (CRC 1173)</b>	2015	<a href="http://www.waves.kit.edu">www.waves.kit.edu</a>
 Münster	Westfälische Wilhelms-Universität Münster	<b>Groups, Geometry, and Actions (CRC 878)</b>	2010	<a href="http://www.math.uni-muenster.de/sfb878">www.math.uni-muenster.de/sfb878</a>
 Potsdam	Universität Potsdam	<b>Data Assimilation – The Seamless Integration of Data and Models (CRC 1294)</b>	2017	<a href="http://www.agnld.uni-potsdam.de/~shw/prp/prp.html">www.agnld.uni-potsdam.de/~shw/prp/prp.html</a>
 Regensburg	Universität Regensburg	<b>Higher Invariants – Interactions between Arithmetic Geometry and Global Analysis (CRC 1085)</b>	2013	<a href="http://www.mathematik.uni-regensburg.de/loeh/sfb-higher-invariants">www.mathematik.uni-regensburg.de/loeh/sfb-higher-invariants</a>
<b>COLLABORATIVE RESEARCH CENTRES/TRANSREGIOS</b>				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	<b>Symbolic Tools in Mathematics and their Application (TRR 195)</b>	2017	<a href="http://www.computeralgebra.de/sfb">www.computeralgebra.de/sfb</a>
Kaiserslautern	Technische Universität Kaiserslautern			
Saarbrücken	Universität des Saarlandes			

## CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
<p>■ Berlin</p> <p>München</p> <p>Graz (Austria)</p> <p>Vienna (Austria)</p>	<p>Technische Universität Berlin</p> <p>Technische Universität München</p> <p>Technische Universität Graz</p> <p>Technische Universität Wien</p>	<b>Discretization in Geometry and Dynamics (TRR 109)</b>	2012	<a href="http://www.discretization.de">www.discretization.de</a>
<p>■ Berlin</p> <p>Darmstadt</p> <p>Erlangen-Nuremberg</p>	<p>Humboldt-Universität zu Berlin</p> <p>Technische Universität Berlin</p> <p>Technische Universität Darmstadt</p> <p>Friedrich-Alexander-Universität Erlangen-Nürnberg</p>	<b>Mathematical Modelling, Simulation and Optimization. Using the Example of Gas Networks (TRR 154)</b>	2014	<a href="http://trr154.fau.de">http://trr154.fau.de</a>
<p>■ Bochum</p> <p>Cologne</p>	<p>Ruhr-Universität Bochum</p> <p>Universität zu Köln</p>	<b>Symplectic Structures in Geometry, Algebra and Dynamics (TRR 191)</b>	2017	<a href="http://www.mi.uni-koeln.de/CRC-TRR191/">www.mi.uni-koeln.de/CRC-TRR191/</a>
<p>■ Bonn</p> <p>Essen</p> <p>Mainz</p>	<p>Rheinische Friedrich-Wilhelms-Universität Bonn</p> <p>Universität Duisburg-Essen</p> <p>Johannes Gutenberg-Universität Mainz</p>	<b>Periods, Moduli Spaces and Arithmetic of Algebraic Varieties (TRR 45)</b>	2007	<a href="http://www.sfb45.de">www.sfb45.de</a>



# RESEARCH UNITS

-FUNDED BY DFG-

**Research Units (FOR)** often contribute to establishing new research directions. Research Units are made up of a team of researchers working together on a research project which is often of an interdisciplinary nature. Research Units consist of several researchers and subprojects. The subprojects of a Research Unit are often located at several locations throughout Germany. Research Units are generally funded for up to six years.

Research Units are not shown on the map. Only the titles of the thematic focus and the project websites are listed.



## RESEARCH UNITS

Title	Funded Since	Contact
Rough Paths, Stochastic Partial Differential Equations and Related Topics (FOR 2402)	2016	<a href="http://www.for2402.tu-berlin.de">www.for2402.tu-berlin.de</a>
Symmetry, Geometry and Arithmetic (FOR 1920)	2013	<a href="http://www.mathi.uni-heidelberg.de/fg-sga">www.mathi.uni-heidelberg.de/fg-sga</a>
Structural Inference in Statistics: Adaptation and Efficiency (FOR 1735)	2012	<a href="http://www.mathematik.hu-berlin.de/for1735">www.mathematik.hu-berlin.de/for1735</a>
Geometry and Physics of Spatial Random Systems (FOR 1548)	2011	<a href="http://www.stochastik.math.uni-goettingen.de/forscherguppe">www.stochastik.math.uni-goettingen.de/forscherguppe</a>



# PRIORITY PROGRAMMES

- FUNDED BY DFG -

**Priority Programmes (SPP)** have a programmatic focus and have the purpose of advancing knowledge in an emerging field of research through collaborative networked support.

They are characterised by their enhanced quality of research through the use of new methods and forms of collaboration in emerging fields. One programme can consist of up to 30 individual researchers and subprojects located at several institutions across Germany; it usually has one coordinating person. Priority Programmes normally receive funding for a period of six years.

Priority Programmes are not shown on the map. Only the titles of the overall themes and the project website are listed.



PRIORITY PROGRAMMES

Title	Funded Since	Contact
Geometry at Infinity (SPP 2026)	2017	<a href="https://www.math.uni-augsburg.de/prof/diff/SPP/">https://www.math.uni-augsburg.de/prof/diff/SPP/</a>
Non-Smooth and Complementarity-Based Distributed Parameter Systems: Simulation and Hierarchical Optimization (SPP 1962)	2016	<a href="https://spp1962.wias-berlin.de">https://spp1962.wias-berlin.de</a>
Compressed Sensing in Information Processing (SPP 1798)	2015	<a href="http://www.ti.rwth-aachen.de/SPP1798">www.ti.rwth-aachen.de/SPP1798</a>
Homotopy Theory and Algebraic Geometry (SPP 1786)	2015	<a href="http://www.esaga.uni-due.de/spp1786">www.esaga.uni-due.de/spp1786</a>
Reliable Simulation Techniques in Solid Mechanics. Development of Non-Standard Discretization Methods, Mechanical and Mathematical Analysis (SPP 1748)	2014	<a href="http://www.uni-due.de/spp1748">www.uni-due.de/spp1748</a>
Software for Exascale Computing (SPP 1648)	2012	<a href="http://www.sppexa.de">www.sppexa.de</a>
Probabilistic Structures in Evolution (SPP 1590)	2012	<a href="http://www.dfg-spp1590.de">www.dfg-spp1590.de</a>



**Fraunhofer Society** is one of the world's leading organisations for applied research with an annual research budget of 2.1 billion euros, 69 institutes and more than 24,500 employees. Fraunhofer's R&D portfolio covers a wide range of fields, including health, security, communications, transport, energy and the environment. [www.fraunhofer.de](http://www.fraunhofer.de)

**The Leibniz Association** is an umbrella organisation of 89 research institutes. The annual budget amounts to 1.73 billion euros. Some 9,300 researchers – approximately 20% of them from abroad – work on a widely diverse range of subjects, including the humanities and social sciences, economics, spatial and life sciences, mathematics, natural and engineering sciences and environmental research. [www.leibniz-association.eu](http://www.leibniz-association.eu)

**The Max Planck Society** for the Advancement of Science is one of Germany's largest independent non-profit research organisations. The Max Planck Society has been allocated approximately 1.8 billion euros for 2016. A combined total of more than 13,000 researchers, postdoctoral/junior researchers and visiting researchers at 83 Max Planck Institutes conduct basic research in the natural sciences, life sciences, social sciences and humanities. One third of the researchers and more than half of the junior and visiting researchers come from abroad. [www.mpg.de](http://www.mpg.de)



## NON-UNIVERSITY RESEARCH INSTITUTIONS

Location	Institution	Contact
FRAUNHOFER INSTITUTES		
● Kaiserslautern	Fraunhofer Institute for Industrial Mathematics (ITWM)	<a href="http://www.itwm.fraunhofer.de">www.itwm.fraunhofer.de</a>
● St. Augustin	Fraunhofer Institute for Algorithms and Scientific Computing (SCAI)	<a href="http://www.scai.fraunhofer.de">www.scai.fraunhofer.de</a>
LEIBNIZ INSTITUTES		
● Berlin	Weierstrass Institute for Applied Analysis and Stochastics Leibniz Institute in Forschungsverbund Berlin e. V. (WIAS)	<a href="http://www.wias-berlin.de">www.wias-berlin.de</a>
● Oberwolfach	Mathematisches Forschungsinstitut Oberwolfach (MFO)	<a href="http://www.mfo.de">www.mfo.de</a>
MAX-PLANCK-INSTITUTES		
● Bonn	Max Planck Institute for Mathematics (MPI-M)	<a href="http://www.mpim-bonn.mpg.de">www.mpim-bonn.mpg.de</a>
● Leipzig	Max Planck Institute for Mathematics in the Sciences (MPI-MIS)	<a href="http://www.mis.mpg.de">www.mis.mpg.de</a>
OTHERS		
● Berlin	ECMath – Einstein Center for Mathematics Berlin	<a href="http://www.ecmath.de">www.ecmath.de</a>
● Berlin	Forschungscampus MODAL - Mathematical Optimization and Data Analysis Laboratories	<a href="http://www.forschungscampus-modal.de">www.forschungscampus-modal.de</a>
● Berlin	Konrad-Zuse-Zentrum für Informationstechnik Berlin (Zuse Institute Berlin)	<a href="http://www.zib.de">www.zib.de</a>
Network of project consortia spread all over Germany	Federal Ministry of Education and Research (BMBF) Programme “Mathematics for Innovations in Industry and Services”	<a href="http://www.bmbf.de/foerderungen/20306.php">www.bmbf.de/foerderungen/20306.php</a> (DE)

# GRADUATE TRAINING

- FUNDED BY DFG -











**Graduate Schools (GSC)** were established at universities in the framework of the German Excellence Initiative. Their objective is to provide training and qualification for outstanding doctoral students from Germany and abroad within an excellent research environment. They serve as an instrument of quality assurance in promoting early career researchers and offer large networks that cover wide areas of research.

**Research Training Groups (RTG)** combine an ambitious research programme at universities with comprehensive training, tailored supervision and academic freedom to form an ideal environment for a successful doctorate. Research Training Groups can also have an interdisciplinary approach. They are funded for a period of up to nine years.










**International Research Training Groups (IRTG)** provide opportunities for joint doctoral training programmes between German universities and universities abroad. The research and study programmes are jointly developed and supervised. Doctoral students in the programme spend six months at the partner institution.

**Integrated Research Training Groups** (within Clusters of Excellence or Collaborative Research Centres/Transregios) offer ideal research environments for doctoral researchers. The main aim of these structured training programmes is to provide young scientists and academics with opportunities to independently carry out research at an early stage of their career. The programmes further take care to closely integrate early career researchers into an academic network. Working in Clusters of Excellence or Collaborative Research Centres projects, doctoral researchers achieve additional qualifications. As research assistants in these projects, they contribute to the Research Centre's success. They are closely involved with the projects and have access to the entire project infrastructure.

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
<b>GRADUATE SCHOOLS</b>				
 Berlin	Technische Universität Berlin Freie Universität Berlin Humboldt-Universität zu Berlin	<b>Berlin Mathematical School (GSC 14)</b>	2006	<a href="http://www.math-berlin.de">www.math-berlin.de</a>
 Heidelberg	Ruprecht-Karls-Universität Heidelberg	<b>Heidelberg Graduate School of Mathematical and Computational Methods for the Sciences (GSC 220)</b>	2007	<a href="http://www.mathcomp.uni-heidelberg.de">www.mathcomp.uni-heidelberg.de</a>
<b>RESEARCH TRAINING GROUPS</b>				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	<b>Energy, Entropy, and Dissipative Dynamics (RTG 2326)</b>	2017	tba
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	<b>Experimental and Constructive Algebra (RTG 1632)</b>	2010	<a href="http://www.math.rwth-aachen.de/~Graduiertenkolleg">www.math.rwth-aachen.de/~Graduiertenkolleg</a>
 Bochum	Ruhr-Universität Bochum	<b>High-Dimensional Phenomena in Probability – Fluctuations and Discontinuity (RTG 2131)</b>	2015	<a href="https://sites.google.com/site/rtg2131/">https://sites.google.com/site/rtg2131/</a>
Dortmund	Technische Universität Dortmund			
Essen	Universität Duisburg-Essen			
 Bremen	Universität Bremen	<b>Pi³: Parameter Identification – Analysis, Algorithms, Implementations (RTG 2224)</b>	2016	<a href="http://www.math.uni-bremen.de/rtg-pi3">www.math.uni-bremen.de/rtg-pi3</a>
 Freiburg	Albert-Ludwigs-Universität Freiburg	<b>Cohomological Methods in Geometry (RTG 1821)</b>	2011	<a href="http://www.gk1821.uni-freiburg.de">www.gk1821.uni-freiburg.de</a>
 Göttingen	Georg-August-Universität Göttingen	<b>Discovering Structure in Complex Data: Statistics meets Optimization and Inverse Problems (RTG 2088)</b>	2015	<a href="http://www.uni-goettingen.de/en/about-the-rtg/514402.html">www.uni-goettingen.de/en/about-the-rtg/514402.html</a>
 Hamburg	Universität Hamburg	<b>Mathematics Inspired by String Theory and QFT (RTG 1670)</b>	2010	<a href="http://grk1670.math.uni-hamburg.de">http://grk1670.math.uni-hamburg.de</a>
 Hannover	Gottfried Wilhelm Leibniz Universität Hannover	<b>Analysis, Geometry and String Theory (RTG 1463)</b>	2007	<a href="http://www.grk1463.uni-hannover.de">www.grk1463.uni-hannover.de</a>

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Heidelberg  Karlsruhe	Ruprecht-Karls-Universität Heidelberg Karlsruher Institut für Technologie	<b>Asymptotic Invariants and Limits of Groups and Spaces (RTG 2229)</b>	2016	<a href="http://www.groups-and-spaces.kit.edu">www.groups-and-spaces.kit.edu</a>
 Heidelberg  Mannheim	Ruprecht-Karls-Universität Heidelberg Universität Mannheim	<b>Statistical Modeling of Complex Systems and Processes – Advanced Nonparametric Approaches (RTG 1953)</b>	2013	<a href="http://rtg1953.uni-heidelberg.uni-mannheim.de">http://rtg1953.uni-heidelberg.uni-mannheim.de</a>
 Kaiserslautern	Technische Universität Kaiserslautern	<b>Stochastic Models for Innovations in the Engineering Sciences (RTG 1932)</b>	2013	<a href="http://www.mathematik.uni-kl.de/en/research-training-group-1932/rtg1932/">www.mathematik.uni-kl.de/en/research-training-group-1932/rtg1932/</a>
 Magdeburg	Otto-von-Guericke-Universität Magdeburg	<b>Mathematical Complexity Reduction (CoRe) (RTG 2297)</b>	2017	<a href="http://www.mathcore.ovgu.de">www.mathcore.ovgu.de</a>
 Osnabrück	Universität Osnabrück	<b>Combinatorial Structures in Geometry (RTG 1916)</b>	2013	<a href="http://www.grako.uni-osnabrueck.de">www.grako.uni-osnabrueck.de</a>
 Regensburg	Universität Regensburg	<b>Curvature, Cycles, and Cohomology (RTG 1692)</b>	2010	<a href="http://www-app.uni-regensburg.de/Fakultaeten/MAT/GK">www-app.uni-regensburg.de/Fakultaeten/MAT/GK</a>
 Trier	Universität Trier	<b>Algorithmic Optimization (ALOP) (RTG 2126)</b>	2015	<a href="http://www.alop.uni-trier.de">www.alop.uni-trier.de</a>
 Tübingen  Stuttgart	Eberhard-Karls-Universität Tübingen Universität Stuttgart	<b>Spectral Theory and Dynamics of Quantum Systems (RTG 1838)</b>	2013	<a href="http://www.mathematik.uni-stuttgart.de/grk1838">www.mathematik.uni-stuttgart.de/grk1838</a>
INTERNATIONAL RESEARCH TRAINING GROUPS				
 Bielefeld  Seoul (South Korea)	Universität Bielefeld Seoul National University	<b>Searching for the Regular in the Irregular: Analysis of Singular and Random Systems (IRTG 2235)</b>	2016	<a href="https://irtg.math.uni-bielefeld.de">https://irtg.math.uni-bielefeld.de</a>

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Darmstadt Tokyo (Japan)	Technische Universität Darmstadt The University of Tokyo Waseda University Tokyo Institute of Technology	<b>Mathematical Fluid Dynamics (IRTG 1529)</b>	2008	<a href="http://www.mathematik.uni-darmstadt.de/~igk">www.mathematik.uni-darmstadt.de/~igk</a>
 Munich  Graz (Austria)	Technische Universität München Universität der Bundeswehr München Karl-Franzens-Universität Graz Technische Universität Graz	<b>Optimization and Numerical Analysis for Partial Differential Equations with Nonsmooth Structures (IRTG 1754)</b>	2011	<a href="http://igdk1754.ma.tum.de/IGDK1754">http://igdk1754.ma.tum.de/IGDK1754</a>
INTEGRATED RESEARCH TRAINING GROUPS IN CLUSTERS OF EXCELLENCE				
 Bonn	Rheinische Friedrich-Wilhelms-Universität Bonn	<b>Bonn International Graduate School in Mathematics (BIGS-Mathematics) (EXC 59, HCM)</b>	2006	<a href="http://www.bigs-math.uni-bonn.de">www.bigs-math.uni-bonn.de</a>
INTEGRATED RESEARCH TRAINING GROUPS IN COLLABORATIVE RESEARCH CENTRES				
 Berlin	Freie Universität Berlin	<b>Integrated Research Training Group within: Scaling Cascades in Complex Systems (CRC 1114)</b>	2014	<a href="http://www.sfb1114.de/phd-program">www.sfb1114.de/phd-program</a>
 Karlsruhe	Karlsruher Institut für Technologie	<b>Integrated Research Training Group within: Wave Phenomena: Analysis and Numerics (CRC 1173)</b>	2015	<a href="http://www.waves.kit.edu/irtg.php">www.waves.kit.edu/irtg.php</a>
 Münster	Westfälische Wilhelms-Universität Münster	<b>Integrated Research Training Group within: Groups, Geometry, and Actions (CRC 878)</b>	2010	<a href="http://www.math.uni-muenster.de/sfb878/research_training_group">www.math.uni-muenster.de/sfb878/research_training_group</a>
 Postdam	Universität Potsdam	<b>Integration Research Training Group within: Data Assimilation – The Seamless Integration of Data and Models (CRC 1294)</b>	2017	<a href="http://www.agnld.uni-potsdam.de/~shw/prp/Poster/Poster_Z02.pdf">www.agnld.uni-potsdam.de/~shw/prp/Poster/Poster_Z02.pdf</a>

## GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
INTEGRATED RESEARCH TRAINING GROUPS IN COLLABORATIVE RESEARCH CENTRES/ TRANSREGIOS				
<div style="background-color: #4CAF50; width: 15px; height: 10px; margin-bottom: 5px;"></div> Aachen  Kaiserslautern  Saarbrücken	Rheinisch-Westfälische Technische Hochschule Aachen  Technische Universität Kaiserslautern  Universität des Saarlandes	<b>Integrated Research Training Group within: Symbolic Tools in Mathematics and their Application (TRR 195)</b>	2017	<a href="http://www.computeralgebra.de/sfb/graduateprogramme">www.computeralgebra.de/sfb/graduateprogramme</a>
<div style="background-color: #4CAF50; width: 15px; height: 10px; margin-bottom: 5px;"></div> Berlin  Darmstadt  Erlangen-Nuremberg	Humboldt-Universität zu Berlin  Technische Universität Berlin  Technische Universität Darmstadt  Friedrich-Alexander-Universität Erlangen-Nürnberg	<b>Integrated Research Training Group within: Mathematical Modelling, Simulation and Optimization Using the Example of Gas Networks (TRR 154)</b>	2014	<a href="http://trr154.fau.de/index.php/en/research-training-group">http://trr154.fau.de/index.php/en/research-training-group</a>
<div style="background-color: #4CAF50; width: 15px; height: 10px; margin-bottom: 5px;"></div> Bonn  Essen  Mainz	Rheinische Friedrich-Wilhelms-Universität Bonn  Universität Duisburg-Essen  Johannes Gutenberg-Universität Mainz	<b>Integrated Research Training Group within: Periods, Moduli Spaces and Arithmetic of Algebraic Varieties (TRR 45)</b>	2007	<a href="http://www.sfb45.de/graduate-school">www.sfb45.de/graduate-school</a>





# GRADUATE TRAINING

- AT NON-UNIVERSITY RESEARCH INSTITUTIONS -

**Helmholtz Graduate Schools** provide a roof under which a varied number of curricula in different fields, or across disciplines, can find a home. Helmholtz Graduate Schools constitute a valuable addition to the wide range of training programmes available within the Helmholtz Association. They offer optimal conditions for PhD students to work and enable them to create a network of contacts with fellow university researchers while also fostering the integration of participants into the research environment.

**International Max Planck Research Schools (IMPRS)** offer talented German and international junior scientists the opportunity to earn a doctorate under excellent research conditions. The research schools are established by one or several Max Planck Institutes. These IMPRS work in close cooperation with universities and other – sometimes international – research institutions. This provides an extraordinary framework for the graduate students to work in, and is a great advantage in interdisciplinary research projects, or in projects that require special equipment.



## GRADUATE TRAINING

Location	Title	Contact
HELMHOLTZ GRADUATE SCHOOLS		
● Potsdam	<b>Helmholtz Graduate Research School GeoSim</b>	<a href="http://www.geo-x.net/geosim">www.geo-x.net/ geosim</a>
INTERNATIONAL MAX PLANCK RESEARCH SCHOOLS (IMPRS)		
● Berlin	<b>IMPRS for Computational Biology and Scientific Computing</b>	<a href="http://www.molgen.mpg.de/IMPRS">www.molgen.mpg. de/IMPRS</a>
● Bonn	<b>IMPRS for Moduli Spaces</b>	<a href="http://www.mpim-bonn.mpg.de">www.mpim-bonn. mpg.de</a>
● Leipzig	<b>IMPRS for Mathematics in the Sciences</b>	<a href="http://www.imprs-mis.mpg.de">www.imprs-mis.mpg.de</a>
● Potsdam-Golm	<b>IMPRS for Mathematical and Physical Aspects of Gravitation, Cosmology and Quantum Field Theory</b>	<a href="http://www.imprs-gcp.aei.mpg.de">www.imprs-gcp.aei. mpg.de</a>

# SOCIETIES AND ASSOCIATIONS

## IN GERMANY

Deutsche Mathematiker Vereinigung (DMV): <https://dmv.mathematik.de> (DE)

International Association of Applied Mathematics and Mechanics (GAMM):  
[www.gamm-ev.de](http://www.gamm-ev.de)

## OPEN POSITIONS

Research in Germany: [www.research-in-germany.org/jobs](http://www.research-in-germany.org/jobs)

Fraunhofer Society: [www.fraunhofer.de/en/jobs-career](http://www.fraunhofer.de/en/jobs-career)

Helmholtz Association: [www.helmholtz.de/en/jobs\\_talent](http://www.helmholtz.de/en/jobs_talent)

Leibniz Society: [www.leibniz-gemeinschaft.de/en/careers](http://www.leibniz-gemeinschaft.de/en/careers)

Max Planck Society: [www.mpg.de/jobboard](http://www.mpg.de/jobboard)

## FURTHER INFORMATION

### RESEARCH INSTITUTIONS, PROJECTS, FUNDING, CONTACTS



**The “Research in Germany” Portal:** Information on research and funding opportunities, academic and research-related job portals, as well as advice on preparing a research stay or initiating a collaboration with German research organisations. [www.research-in-germany.org](http://www.research-in-germany.org)



**German Project Information System (GEPRIS):** Online database providing information about all current DFG-funded research projects and contact information for the Principal Investigators. <http://gepris.dfg.de>



**The Research Explorer:** Information on more than 19 000 institutes at German universities and non-university research institutions, searchable by geographic location, subject and other structural criteria. <http://research-explorer.dfg.de>



**Website of the DFG:** Further background information about DFG funding programmes, funding guidelines, and lists of currently DFG-funded activities. [www.dfg.de](http://www.dfg.de)



**The German Rectors’ Conference (HRK) Research Map:** The interactive HRK *Research Map* database provides information on the research priorities that are of strategic institutional importance for each university. [www.hrk.de/home](http://www.hrk.de/home) (go to → *Research Map*)



**The Higher Education Compass:** Information on Germany’s higher education institutions, the range of courses and programmes that they offer, their worldwide cooperation, and who to contact locally. [www.hochschulkompass.de/en/higher-education-compass](http://www.hochschulkompass.de/en/higher-education-compass)





## Contact

German Research Foundation (DFG)  
DFG Head Office Germany  
[www.dfg.de](http://www.dfg.de)  
[researchmarketing@dfg.de](mailto:researchmarketing@dfg.de)

**DFG** Deutsche  
Forschungsgemeinschaft