

DAAD RISE Opportunities

| <b>Subject</b> | <b>Ref. Code</b>                   | <b>Title</b>   |
|----------------|------------------------------------|--|
| Biology        | Heidelberg_BI_5269                 | Artificial tumour model: the role of mechanical properties in cancer cell malignancy                 |
| Biology        | Mainz_BI_5313                      | 3D organoid model: a new window in research of neurodegenerative disorders                           |
| Biology        | Ploen_BI_BI_5006                   | A poly-G tract in a bacterial chemotaxis gene potentially regulates bacteriophage resistance         |
| Biology        | Bonn_BI_EN_4641                    | Advanced Methods in Brain Stimulation and Applications to Reward Processing                          |
| Biology        | Kiel_CS_BI_5286                    | AI based detection of unreliable image data  |
| Biology        | Jena_EN_BI_4999                    | Antimicrobial and cell promoting structures and properties of nano structured titanium               |
| Biology        | Muenchen_EN_BI_5277                | Application of Microbial Induced Carbonate Precipitation (MICP) in Civil Engineering                 |
| Biology        | Bonn_BI_BI_5208                    | Arthropod taxonomy in agricultural fields  |
| Biology        | Berlin_BI_4236                     | Attenuation and Agency: Understanding Perception through the Examination of Sensory Phenomena        |
| Biology        | Dortmund_BI_5254                   | Biochemical characterization of deubiquitinating enzymes   |
| Biology        | Erlangen_BI_BI_4801                | Biomarkers and mechanisms in depression  |
| Biology        | Eichstaett_ES_BI_4973              | Birch Pollen Production in Ingolstadt, Germany   |
| Biology        | Freising_BI_5150                   | BlüDiv - Improvement of flowering fields in agricultural landscapes for plant and insect diversity   |
| Biology        | Wuerzburg_BI_5031                  | Bortezomib- induced peripheral neuropathy: a multimodal, monocentric, non-randomised clinical study  |
| Biology        | Paderborn_BI_BI_5203               | Bring Your Brainpower and Strength - Excel in Your Scientific Journey!                               |
| Biology        | BarsbuettelWillinghusen_BI_ES_5142 | Carbon fluxes and plant-soil interactions in estuarine alluvial forests at the Elbe River            |
| Biology        | Bremen_BI_CH_5202                  | Catching marine metabolites with novel resin bags - CatchMe  |
| Biology        | Muenchen_BI_5069                   | Cellular physiology and molecular pathology of the Alzheimer risk gene ABI3                          |
| Biology        | Muencheberg_BI_ES_4998             | Changes in habitat quality and biological soil properties through the use of field robots            |
| Biology        | Rostock_BI_5037                    | Characterization of genetic animal model of Parkinson's disease                                      |
| Biology        | Bochum_CH_BI_4530                  | Combining STED and SIC Microscopy to Investigate Cell Membrane and Cytoskeletal Interactions         |
| Biology        | Teltow_BI_CS_5291                  | Computational Imaging Analysis of Induced Pluripotent Stem Cell-Derived Human Liver Organoids        |
| Biology        | Cologne_BI_CS_4786                 | Controlling a spacecraft under extreme conditions: eye tracking as performance measure               |
| Biology        | Luebeck_BI_BI_5215                 | DAAD RISE Biology Internship 2024: Join Our Team in Luebeck  |
| Biology        | Muencheberg_BI_ES_4995             | Data collection to assess physical soil property changes through the use of field robots             |
| Biology        | Duesseldorf_BI_5296                | Decoding Lichen Communities: Exploring Mycobiont Proteins  |
| Biology        | Luebeck_BI_5023                    | Defining the impact of shift work on autoimmune diseases   |
| Biology        | Jena_CH_BI_5074                    | Degradation properties of self-assembled protein nanofibers and 2D networks as potential materials f |

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| Biology | Coburg_BI_CH_5087                | Detection of Microbial Food Contaminants in Microfluidic Free Flow Electrophoresis Chips             |
| Biology | Bonn_BI_PH_5356                  | Developing and characterizing fluorescent marker strategies for quantitative super-res. microscopy   |
| Biology | Kaiserslautern_EN_BI_5103        | Development of a vitality measurement method for <i>S. cerevisiae</i> wine                           |
| Biology | Osnabrueck_BI_5081               | Development of Growing Media in Horticulture   |
| Biology | Kiel_PH_BI_5155                  | Dissolution Dynamic Nuclear Polarization for UV and Xenon Gas  |
| Biology | Freiburg_BI_5339                 | Disturbed Repolarisation-Relaxation Coupling: A Novel Mechanism of Systolic Mechano-Arrhythmogenesis |
| Biology | Greifswald_BI_5045               | Do RONS within PTW change by addition of chemical substances providing H, C, or O?                   |
| Biology | Greifswald_BI_5043               | Do RONS within the microwave-based Plasma-treated water (PTW) affect prokaryotic cells differently?  |
| Biology | Freiburg_BI_4985                 | Ecoacoustics and Landuse   |
| Biology | Wuerzburg_BI_CS_5285             | EEG microstates and brain connectivity in migraine patients  |
| Biology | Bayreuth_BI_5163                 | Effects of climate change on grassland biodiversity and ecosystem functions                          |
| Biology | Bayreuth_BI_5171                 | Effects of climate change on grassland biodiversity and ecosystem functions                          |
| Biology | Greifswald_BI_BI_5086            | Effects of climate change: how does overwintering temperature determine growth and metabolic rate?   |
| Biology | FrankfurtamMain_BI_5370          | Effects of enhanced forest structure diversity on the microbial communities of dead wood             |
| Biology | Darmstadt_BI_5147                | Effects of UV exposure on human dermal stem cell differentiation in melanoma genesis                 |
| Biology | Kaiserslautern_EN_BI_5022        | Electrobiotechnology – Microbial electro-fermentation for electricity-driven bioproduction of value  |
| Biology | Duesseldorf_BI_5240              | Establishment of biosensors in sucrose-producing cyanobacteria                                       |
| Biology | Marburg_BI_4630                  | Establishment of iPSC-based lung organoid system as an alternative to animal-based research models   |
| Biology | Greifswald_ES_BI_5229            | Experimental Plant Ecology - Coping with climate change  |
| Biology | Stuttgart_BI_4664                | Experimental Plant Ecology in Southern Germany   |
| Biology | GarmischPartenkirchen_BI_BI_5078 | Experimental Tree Ecophysiology in the German Alps   |
| Biology | Berlin_BI_5153                   | Exploring immune interactions in the intestinal landscape  |
| Biology | Goettingen_ES_BI_5256            | Exploring insect mass outbreaks and carbon cycling in forest ecosystems                              |
| Biology | Potsdam_BI_PH_5261               | Exploring mechano-sensitive channels on photoswitchable lipid membranes                              |
| Biology | Dresden_BI_BI_5280               | Exploring Tetradentate Siderophores: From Native Production to Complexation with Lanthanides.        |
| Biology | Freising_BI_5283                 | Forest structures under drought stress: influence on tree growth, microclimate and soil life         |
| Biology | Juelich_BI_BI_4568               | Gait and balance monitoring in patients with cerebellar ataxias                                      |

DAAD RISE Opportunities

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| Biology | Sanitz_BI_5273                     | GENETIC AND MOLECULAR ANALYSIS OF GRAIN SIZE CHARACTERS IN BARLEY                                     |
| Biology | Tuebingen_BI_4924                  | Genome and Transcriptome Sequencing of Undiagnosed Individuals with Intellectual Disability           |
| Biology | Wuerzburg_BI_5020                  | Global change in above-belowground multitrophic grassland communities                                 |
| Biology | Aachen_BI_CH_5271                  | H2 driven biocatalysis using SH, P450s and Rieske oxygenases  |
| Biology | Bremen_BI_4646                     | Health CASCADE: Co-creating with TeamBaby   |
| Biology | Goettingen_BI_5189                 | Heat sensitivity in temperate European forests  |
| Biology | Tuebingen_CS_BI_4992               | Human-Computer Interaction at the Intersection of Behavioral and Computer Science                     |
| Biology | Rostock_BI_BI_4683                 | Hydrodynamic perception in otariids   |
| Biology | Konstanz_BI_5088                   | Identifying neural correlates of defensive behaviour in honeybees ( <i>Apis mellifera</i> )           |
| Biology | Berlin_BI_4896                     | IDRs mediated protein-protein interaction and chromatin regulation in plants                          |
| Biology | EggensteinLeopoldshafen_BI_BI_5106 | Immobilization of enzyme systems for improved biocatalysis  |
| Biology | Tuebingen_BI_5278                  | Immune receptor organization in plant plasma membranes – organizing factors, phenotypes, function.    |
| Biology | Lueneburg_BI_5248                  | Impacts of enhanced structural complexity on functional diversity of forest understory vegetation     |
| Biology | Mannheim_BI_5197                   | Implementation of Hyperspectral Imaging for intraoperative tissue into clinical practice (Urology)    |
| Biology | Bonn_PH_BI_4415                    | Improving Single-Molecule Super-Resolution Imaging by Event-based Sensors                             |
| Biology | Jena_BI_5347                       | Infection and behaviour in a clonal ant   |
| Biology | Bonn_BI_5365                       | Insect diversity monitoring in agricultural systems   |
| Biology | Tuebingen_BI_4580                  | InsectMow – Development and evaluation of insect and spider friendly mowing techniques                |
| Biology | Berlin_BI_BI_4957                  | Intern in biomedical Science (m/f/d)  |
| Biology | Bonn_BI_BI_4143                    | Internship "Nutrition and Microbiota"   |
| Biology | Bayreuth_BI_5170                   | Internship in effects of global change on grassland communities in Germany and the European Alps      |
| Biology | Jena_PH_BI_5027                    | Internship Opportunity at the ENT/Research Laboratories in Jena within the Scope of RISE              |
| Biology | Bayreuth_BI_5172                   | Internship studying effects of global change on grasslands and forests                                |
| Biology | Konstanz_BI_5178                   | Investigating Mechanisms of Collective Behaviour in Locusts   |
| Biology | Tuebingen_BI_CS_5201               | Investigation of microbiome-host interactions using non-invasive imaging                              |
| Biology | Hannover_BI_BI_5048                | Investigation of the involvement of different T lymphocyte subsets in Infectious Bursal Disease Virus |
| Biology | PlaneggMartinsried_BI_5267         | Larvae of Holometabola –a relevant source of information on current and past biodiversity of insects  |
| Biology | Sanitz_BI_BI_5184                  | Late blight resistance screening in diverse potato pre-breeding accessions                            |

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| Biology | Kaiserslautern_BI_5287    | Linking mitochondrial protein-import stress to neurodegenerative disease                              |
| Biology | Kiel_ES_BI_5262           | Lipid biomarker recycling by archaea  |
| Biology | Bonn_BI_4782              | Mechanisms driving early T follicular helper cell fate decisions                                      |
| Biology | Goettingen_CS_BI_5190     | Medical Informatics: Explainable AI for Biosignals  |
| Biology | Potsdam_BI_ES_5040        | Microbial Ecology: using DNA-SIP to understand microbe- plant interactions in wetlands                |
| Biology | Tuebingen_BI_5055         | Molecular mechanisms of dietary interventions in Machado-Joseph Disease                               |
| Biology | Wuerzburg_BI_4990         | MultiCrossBEF - Land-use impacts on above-belowground arthropod communities                           |
| Biology | Greifswald_BI_5090        | Multimodal spider courtship: plasticity of vibrational signaling in response to nuptial gift quality  |
| Biology | Bernburg_BI_5251          | Nature conservation by grassland restoration: implications for vegetation, wild bees and butterflies  |
| Biology | Mannheim_BI_BI_5230       | Necrotizing enterocolitis and neutrophil extracellular traps: An organ in a dish                      |
| Biology | Konstanz_BI_BI_5099       | Neural Basis of Noise Processing and Decision-Making in Larval Zebrafish                              |
| Biology | Berlin_BI_4728            | Pathogen-induced movement behaviour & fitness trade-offs in songbirds                                 |
| Biology | GrossLuesewitz_BI_BI_5035 | PHENOTYPIC AND MOLECULAR APPROACHES TO DECIPHER GENETIC CONTROL OF PLANT HEIGHT IN RYE                |
| Biology | Heidelberg_BI_5281        | Photomechanical stimulation of stem cell differentiation  |
| Biology | Kiel_BI_5129              | Plant and animal diversity on golf courses in northern Germany  |
| Biology | Witzenhausen_BI_BI_4984   | Plant-plant-soil interactions in changing environments  |
| Biology | Wuerzburg_BI_BI_4976      | Prevention and treatment of infections in ants  |
| Biology | Cologne_BI_5275           | Quantification of stream ecosystem functions along an agricultural land use gradient                  |
| Biology | Zweibruecken_BI_PH_4225   | Quantitative Raman spectroscopy and staining to quantify chromatin condensation of individual sperm   |
| Biology | Bonn_BI_5139              | Regulation and adaption of adenylyl cyclases and cAMP signaling networks in brown adipose tissue      |
| Biology | Darmstadt_BI_BI_4128      | Regulation of mammalian genome architecture and mobility in pluripotent and transformed cells         |
| Biology | Helgoland_BI_5351         | Responses of marine organisms to multiple stressors   |
| Biology | Magdeburg_BI_BI_5214      | Responses of stream biodiversity and functions to inputs of treated wastewater: a mesocosm experiment |
| Biology | Hamburg_BI_5130           | Role of ChREBP $\beta$ in Brown Adipose Tissue Metabolism and Thermogenesis.                          |
| Biology | Darmstadt_BI_BI_5175      | Role of Mbd1 in pluripotency  |
| Biology | Duesseldorf_BI_4821       | Role of pericardial cells in myocardial infarction  |
| Biology | Muencheberg_BI_BI_4504    | Role of Weeds in the Spread of Fungal Disease in Wheat under Varying Precipitation Conditions         |

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| Biology | Luebeck_BI_5341               | Secondary analysis of recombinant monoclonal antibodies in context of an experimental model of autoi |
| Biology | Goettingen_BI_4162            | Small Mammal Abundance & Seed Dispersal  |
| Biology | Goettingen_BI_BI_5008         | Small mammal movement, behavior and competition  |
| Biology | Aachen_BI_EN_5306             | Stem Cell-derived 3D In Vitro Model of the Outer Retina  |
| Biology | Juelich_EN_BI_5333            | Sterilization and Aging Tests for Electrical and Mechanical Properties of Flexible Neural Implants   |
| Biology | Berlin_BI_5082                | Structural characterization of DHHC18 and DHHC20 interactions with their potential targets           |
| Biology | Bonn_BI_PH_4431               | Super-resolution microscopy to study phenotypes of altered cell cycle and genetic diseases in yeast  |
| Biology | Braunschweig_CH_BI_5231       | Synthesis and Characterization of Organometallic Compounds as Antiviral Agents                       |
| Biology | Braunschweig_CH_BI_5247       | Synthesis and Characterization of Organometallic PROTACs for Cancer Therapy                          |
| Biology | Luebeck_BI_5051               | Systemic and local role of complement component 3 (C3) in an experimental model of autoimmunity      |
| Biology | Berlin_BI_5161                | Testing collective cognition in response to size-selection in zebrafish ( <i>Danio rerio</i> )       |
| Biology | FreiburgimBreisgau_BI_BI_5104 | The influence of forest floor changes on the success and composition of tree regeneration            |
| Biology | Dortmund_BI_5173              | The interplay between multisensory interactions and attention: How are audio-visual objects stored i |
| Biology | Freiburg_BI_BI_4813           | The reforestation of damaged spruce stands in a changing climate                                     |
| Biology | Luebeck_BI_5036               | The role of cyclin-dependent kinase signalling in pemphigoid diseases                                |
| Biology | Ulm_BI_5013                   | The role of white adipose tissue in posttraumatic inflammation                                       |
| Biology | Konstanz_BI_BI_5100           | The visual mechanism of collective motion in desert locusts  |
| Biology | Rostock_BI_BI_4363            | Time perception in Harbor Seals  |
| Biology | Hamburg_BI_PH_4808            | Time-resolved imaging of neuronal growth of human induced stem cell-derived neurons in confined micr |
| Biology | Ulm_EN_4313                   | Tracking and Navigation of Medical Instruments for Image Guided Therapy                              |
| Biology | Heidelberg_CS_BI_5340         | Training an AI to diagnose prostate cancer using transrectal ultrasound                              |
| Biology | Bochum_BI_BI_5216             | Transcriptional and post-transcriptional regulation in pathogenic bacteria -Project 1                |
| Biology | Bochum_BI_BI_5217             | Transcriptional and post-transcriptional regulation in pathogenic bacteria -Project 2                |
| Biology | PlaneggMartinsried_BI_ES_5018 | Uncovering the true potential of true crabs – investigating early fossils of <i>Brachyura</i>        |
| Biology | Kaiserslautern_BI_BI_5266     | Unraveling fructose signaling in plant cells   |
| Biology | Konstanz_BI_5255              | Unravelling insect vision: From natural imaging to neural processing                                 |
| Biology | Braunschweig_BI_CH_4798       | Unwrapping the wonders of chocolate: Understanding the basis in cacao pigmentation                   |
| Biology | Marburg_BI_5119               | Using Cytosine Base Editing to study Cancer Mutations  |
| Biology | Berlin_BI_5210                | Visual ecology of orb-weaver spiders at Natural History Museum Berlin                                |

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| Biology   | Muenchen_BI_4205                          | Visual Perception and Processing   |
| Chemistry | Hannover_CH_EN_4633                       | 1D -Graphene electrospun nanofibers for electrode materials for hydrogen fuel cells                  |
| Chemistry | Bochum_CH_5052                            | Advancing Electronic Circular Dichroism Spectroscopy via balanced detection                          |
| Chemistry | Muenster_CH_CS_4972                       | AI-Methods to Improve Virtual Screening  |
| Chemistry | Dresden_CH_4869                           | Alpha-emitting radionuclides for radiotherapeutics - organic synthesis of promising ligands          |
| Chemistry | EggensteinLeopoldshafen_CH_5250           | Amino Acid Functionalized Organotin Sulfur Cluster   |
| Chemistry | LandauinderPfalz_CH_5092                  | Aquatic-Terrestrial Pollutant Transfer: Detection of current-use pesticides in soil & vegetation     |
| Chemistry | Wuppertal_CH_5183                         | Assessment of novel density functionals for optical properties                                       |
| Chemistry | Geesthacht_EN_CH_5311                     | Atomic Force Microscopy (AFM) investigation of the optoelectronic properties of GaN thin films       |
| Chemistry | Juelich_CH_CS_5308                        | Atomistic simulation of ionic liquid as novel electrolytes for mid-temperature PEMFC.                |
| Chemistry | Jena_CH_CH_5056                           | Carbon-based Electrodes for the Electrochemical Nitrogen Reduction Reaction                          |
| Chemistry | Bremen_BI_CH_5202                         | Catching marine metabolites with novel resin bags - CatchMe  |
| Chemistry | Freiberg_ES_CH_5125                       | Characterizing chemical behavior of heavy metals to recover valuable material from lake sediments    |
| Chemistry | Hannover_CH_4886                          | Chemical modification of Switchable Coordination Compounds   |
| Chemistry | Berlin_CH_PH_4982                         | Chiral sensitive Anion Photoelectron Spectroscopy  |
| Chemistry | Bochum_CH_BI_4530                         | Combining STED and SIC Microscopy to Investigate Cell Membrane and Cytoskeletal Interactions         |
| Chemistry | Krefeld_CH_4963                           | Combustion activity of P-containing flame retardants on textiles                                     |
| Chemistry | Goettingen_PH_CH_5221                     | Correlating the magnetic order and electrochemical activities of thin films                          |
| Chemistry | Jena_CH_BI_5074                           | Degradation properties of self-assembled protein nanofibers and 2D networks as potential materials f |
| Chemistry | EggensteinLeopoldshafenGermany_CH_CH_5065 | Design and characterization of novel chemosensors for the detection of biomarkers in biofluids       |
| Chemistry | Braunschweig_CH_5002                      | Design of functional molecules   |
| Chemistry | Coburg_BI_CH_5087                         | Detection of Microbial Food Contaminants in Microfluidic Free Flow Electrophoresis Chips             |
| Chemistry | Leipzig_CH_4603                           | Developing environmentally friendly membranes: hollow fiber preparation using green solvents         |
| Chemistry | Muenster_CH_5112                          | Development of new antithrombotic drugs: Synthesis of novel inhibitors of Thrombin and Factor XIIIa  |
| Chemistry | Karlsruhe_CH_5066                         | Development of novel photoinitiators for 3D laser nanoprinting                                       |
| Chemistry | Geesthacht_EN_CH_5242                     | Development of polymeric thin-film composite membranes for CO2 separations                           |
| Chemistry | Dresden_CH_4598                           | Digestion of methylated lysine derivatives   |
| Chemistry | Muenster_CH_5195                          | Drug development in Medicinal Chemistry - Synthesis of novel TRIP8b-HCN inhibitors                   |

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| Chemistry | Hamburg_CH_5102                 | Dynamic Power-to-X Process with Fluctuating Hydrogen Supply  |
| Chemistry | Aachen_CH_5243                  | Efficiency enhanced green hydrogen production by coupling with organic electro-oxidation                         |
| Chemistry | Aachen_EN_CH_4722               | Electrochemical Fuel Production: Optimizing the Oxygen Evolution Reaction in CO <sub>2</sub> Reduction Condition |
| Chemistry | EggensteinLeopoldshafen_CH_5246 | Elucidation of the solution behavior of Zintl clusters from intermetallic solids                                 |
| Chemistry | Hamburg_CH_5109                 | Enhanced Biomass Valorisation by Engineering of Polyoxometalate Catalysts  |
| Chemistry | Duesseldorf_CH_5257             | Exploring Atmospheric Reactions: A Journey in Chemical Discovery   |
| Chemistry | Goslar_EN_CH_4863               | Fiber optical sensors and modelling for lithium-ion batteries in the aspect of battery safety                    |
| Chemistry | Jena_CH_5276                    | Functionalised dextran for drug delivery applications  |
| Chemistry | Bochum_CH_4928                  | Going small to see more clearly: Analysing electrocatalytic nanomaterials on very small electrodes               |
| Chemistry | Aachen_BI_CH_5271               | H <sub>2</sub> driven biocatalysis using SH, P450s and Rieske oxygenases   |
| Chemistry | Braunschweig_EN_CH_5294         | How does the catalyst coating affect the production of green hydrogen?   |
| Chemistry | Karlsruhe_CH_5245               | Hybrid Peptoids – Enhancing Molecular Transport and Enabling Cellular Imaging with TADF Emitters                 |
| Chemistry | MuelheimanderRuhr_CH_EN_5361    | Hydrogen separation from natural gas / hydrogen mixtures   |
| Chemistry | Kiel_CH_EN_5259                 | Hydrophobization of metal-organic frameworks for the selective detection of VOCs                                 |
| Chemistry | Braunschweig_CH_5174            | Infection-triggered release of targeted antibiotics  |
| Chemistry | Dresden_CH_4983                 | Influence of food processing on the stability of selenium amino acids in foodstuff                               |
| Chemistry | EggensteinLeopoldshafen_CH_5244 | Insight into the oxidation of tetrahedral Zintl clusters   |
| Chemistry | Kaiserslautern_CH_5168          | Interfacing colloidal nanocrystals with catalysts for light driven oxidation reactions                           |
| Chemistry | Erlangen_CH_CH_5098             | Internship at the Helmholtz Institute for renewable energy   |
| Chemistry | Erlangen_CH_5337                | Internship in the field of Electrocatalysis for Water Electrolysis   |
| Chemistry | FreiburgimBreisgau_CH_EN_5187   | Internship – Development of metal-air batteries  |
| Chemistry | Stuttgart_CH_5196               | Introduction of Rigidity into Amino Acid based Liquid Crystals-A Pathway to Ionic Chiral Mesophases?             |
| Chemistry | Berlin_EN_CH_5072               | Liquid Alkali-Metal in Batteries: Designing Compact, High-Power Anodes   |
| Chemistry | HalleSaale_CS_CH_4955           | Machine learning (ML) in Bioinformatics and Cheminformatics  |
| Chemistry | Jena_CH_4942                    | Membranes for photocatalytic water splitting II  |
| Chemistry | Kaiserslautern_EN_CH_4258       | Modeling and simulation towards a sustainable future   |
| Chemistry | Bremen_CH_CH_4579               | Modification of barrier pigments to protect semiconductor chips with polymeric coatings                          |
| Chemistry | Erlangen_CH_CS_4359             | Molecular Dynamics Simulations of G Protein-Coupled Receptors  |

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| Chemistry | Darmstadt_CH_CH_4744            | Molecular simulation of the wetting process of droplet on hydrophobic surfaces                               |
| Chemistry | Darmstadt_CH_4706               | Multi-scale modeling and simulation of polymers  |
| Chemistry | Juelich_CH_EN_5272              | Multi-target Electrochemical Aptamer-based Biosensor for the detection of respiratory diseases               |
| Chemistry | Darmstadt_CH_4974               | Multiscale Simulation of Plant Seed based Pectin   |
| Chemistry | ClausthalZellerfeld_CH_5076     | Ni-catalyzed Hiyama coupling supported by camforic based NHC ligands   |
| Chemistry | ClausthalZellerfeld_CH_5073     | Novel 2,2'-bipyridine Complexes for Photocatalysis   |
| Chemistry | Marburg_CH_5334                 | On-Surface Coordination Chemistry of Porphyrin and Corrole Complexes   |
| Chemistry | Ulm_CH_5165                     | Optimization of Photoredox-Catalysts for Hydrogen Formation  |
| Chemistry | Karlsruhe_CH_5084               | Organic synthesis of a leadstructure for medicinal application (Bisindole-piperidine)                        |
| Chemistry | SanitzOTGrossLuesewitz_CH_5038  | Phenotypic and chemical approaches to decipher genetic control of grain quality in rye                       |
| Chemistry | Goettingen_CH_5359              | Photoactivated Release of Isothiocyanates Based on a Nature-Inspired Strategy                                |
| Chemistry | Ulm_EN_CH_4738                  | Photochemical Reaction Engineering for Sustainability and the Energy Transition                              |
| Chemistry | Karlsruhe_CH_4967               | Photolysis of aryl azides in supramolecular hosts  |
| Chemistry | Jena_CH_5200                    | Porous Poly(Heptazine Imides) for efficient Light-Driven H <sub>2</sub> O <sub>2</sub> Production            |
| Chemistry | Karlsruhe_CH_CH_4857            | Porphyrin Transition Metal Complexes for CO <sub>2</sub> Reduction   |
| Chemistry | Paderborn_CH_5237               | Preparation of active carbonaceous materials for electrochemical applications                                |
| Chemistry | Landau_CH_5349                  | Project SunLake: Investigating the release, dispersion and fate of nanoparticulate titanium dioxide          |
| Chemistry | Karlsruhe_CH_4724               | Push-Pull Chromophores for Electro-Optic Modulators  |
| Chemistry | Duesseldorf_CH_CH_5057          | Quinolizidine alkaloids as a valuable natural compound side stream   |
| Chemistry | Freiberg_CH_EN_4632             | Recovery of lithium from Li-ion battery recycling effluents through ion-exchange techniques                  |
| Chemistry | Osnabrueck_CH_EN_5206           | Recyclability of medical plastic disposables   |
| Chemistry | Darmstadt_CH_CH_5062            | Roughness and Mobility of Coarse-grained Simulation Models   |
| Chemistry | Zittau_CH_5300                  | Silicone-based Vitrimers as High-Voltage Insulation Materials  |
| Chemistry | Braunschweig_CH_5167            | Singlet Oxygen Generation, Detection, Release and Scavenging   |
| Chemistry | Braunschweig_CH_5094            | Surface Modification of Lipid Nanoparticles  |
| Chemistry | Hamburg_CH_CH_5157              | Sustainable and Recyclable Dynamic Polymer Networks for Nanocomposite Applications                           |
| Chemistry | EggensteinLeopoldshafen_CH_5131 | Syntheses of Heavy Porphyrin Homologue Compounds in Ionic Liquids and Spectroscopic Investigations           |
| Chemistry | berlin_CH_CH_5354               | Synthesis and characterization of intermetallic alloys for CO <sub>2</sub> Hydrogenation by tandem catalysts |

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| Chemistry        | Braunschweig_CH_BI_5231            | Synthesis and Characterization of Organometallic Compounds as Antiviral Agents                         |
| Chemistry        | Braunschweig_CH_BI_5247            | Synthesis and Characterization of Organometallic PROTACs for Cancer Therapy                            |
| Chemistry        | HalleSaale_CH_5093                 | Synthesis and derivatization of antifungal compounds   |
| Chemistry        | EggensteinLeopoldshafen_CH_CH_5198 | Synthesis and Investigations of new Sodium Solid Electrolytes for Batteries                            |
| Chemistry        | Essen_CH_CH_5143                   | Synthesis and Ultraviolet Resonance Raman Spectroscopy of Isotopically Labeled Peptides                |
| Chemistry        | Muenster_CH_5264                   | Synthesis of ion channel modulators and tool compounds   |
| Chemistry        | Leverkusen_CH_CH_5222              | Synthesis of new Ligands for Recycling of Lanthanides  |
| Chemistry        | ClausthalZellerfeld_CH_4975        | Synthesis of new redox active molecules for aqueous organic flow batteries application                 |
| Chemistry        | Karlsruhe_CH_5176                  | Synthesis of Novel Coumarin Derivatives with Anti-Neuroinflammatory Activity                           |
| Chemistry        | Muenster_CH_5181                   | Synthesis of Novel KOR Agonists  |
| Chemistry        | Karlsruhe_CH_5080                  | Synthesis of Novel Polycyclic Aromatic Hydrocarbons (PAHs)   |
| Chemistry        | Schenefeld_CH_PH_4595              | Tracking excited state dynamics of functional molecules by optical transient absorption spectroscopy   |
| Chemistry        | HalleSaale_CH_5284                 | Understanding crystallization mechanisms of Covalent Organic Frameworks                                |
| Chemistry        | Mainz_CH_CS_5324                   | Unraveling Aging-Associated changes in microglial landscape based on single cell sequencing based data |
| Chemistry        | Braunschweig_BI_CH_4798            | Unwrapping the wonders of chocolate: Understanding the basis in cacao pigmentation                     |
| Chemistry        | Hamburg_CH_CH_5009                 | Uranium Coordination Chemistry with Hemilabile Ligand Systems  |
| Chemistry        | Bremen_CH_5114                     | Utilization of carbon dioxide as a raw material for monomers and polymers                              |
| Chemistry        | Berlin_CH_CH_5133                  | Utilizing Machine Learning and Experiments for Photoswitch Design                                      |
| Chemistry        | Hamburg_CH_5193                    | Vitrimers: Reprocessable Dynamic Cross-linked Polymer Networks   |
| Chemistry        | Darmstadt_CH_4977                  | Wetting behavior of underwater oil droplets on soft substrate  |
| Chemistry        | Freiberg_CH_CH_4978                | Generation of catalytically active surfaces through complexation of microgels with cobalt              |
| Computer Science | Muenchen_CS_4926                   | Deep Learning-based turbulence prediction for Urban Air Mobility Vehicles                              |
| Computer Science | Zweibruecken_CS_CS_4996            | 3D Worlds / Virtual Environments with AI and Generative Algorithms                                     |
| Computer Science | Aachen_CS_5118                     | Adoption and Diffusion of Renewable Fuels: Role of Artificial Intelligence                             |
| Computer Science | Zweibruecken_CS_CS_5297            | Advanced Usability and Gamification  |
| Computer Science | Ingolstadt_CS_5309                 | Adversarial Reinforcement Learning based Anomaly Detection for Gas Grids                               |

### DAAD RISE Opportunities

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|------------------|---------------------------|--|
| Computer Science | Kiel_CS_BI_5286           | AI based detection of unreliable image data  |
| Computer Science | Wolfsburg_EN_CS_5233      | AI-based product development and optimization  |
| Computer Science | Muenster_CH_CS_4972       | AI-Methods to Improve Virtual Screening  |
| Computer Science | Freiberg_CS_CS_4933       | An Empathic Artificial Intelligence for a Better Human - AI Relationship in Social Robotics          |
| Computer Science | Duesseldorf_PH_CS_4855    | An Internship in AI for Optics in autonomus driving- machine vision, sensor calibration & fusion     |
| Computer Science | Heiligenhaus_CS_5063      | Applied Artificial Intelligence: Cloud Classification using Capsule Networks                         |
| Computer Science | Wuppertal_CS_EN_4627      | Artificial Intelligence and Deep Learning - Generative Models for Flood Forecasting                  |
| Computer Science | Wuppertal_CS_4340         | Artificial Intelligence and Robotics - Emergent Language via Deep Reinforcement Learning             |
| Computer Science | Brunswick_CS_EN_4811      | Artificial intelligence for systematic and efficient production of battery materials                 |
| Computer Science | Wuppertal_CS_EN_5141      | Artificial Intelligence in Production: Deep Reinforcement Learning for Scheduling Problems           |
| Computer Science | Juelich_CH_CS_5308        | Atomistic simulation of ionic liquid as novel electrolytes for mid-temperature PEMFC.                |
| Computer Science | Cologne_CS_5136           | Automatic Summarisation of Researchers' Bodies of Work   |
| Computer Science | Dortmund_CS_CS_5322       | Autonomous Forklifts in Warehouse Logistics  |
| Computer Science | Zweibruecken_CS_CS_5029   | Avatars and 3D Characters – Creation and Animation   |
| Computer Science | Landshut_CS_CS_5079       | AWS Machine Learning and Web Application Development   |
| Computer Science | Erlangen_CS_5366          | Beyond Words: A Multi-Modal Approach to Depression Detection   |
| Computer Science | Teltow_BI_CS_5291         | Computational Imaging Analysis of Induced Pluripotent Stem Cell-Derived Human Liver Organoids        |
| Computer Science | Kaiserslautern_CS_EN_4865 | Computer science in urban water management: remote sensing, digitization, planning & optimization    |
| Computer Science | Juelich_PH_CS_5364        | Computer simulations of active matter: Predicting structure and dynamics of the cytoskeleton         |
| Computer Science | Potsdam_ES_CS_5191        | Cryostratigraphic characterization of permafrost sediment cores using X-ray microtomographic imaging |
| Computer Science | Karlsruhe_EN_CS_5097      | Data Science and Algorithm building for dispatching Autonomous Mobile Robots                         |
| Computer Science | Wuppertal_CS_CS_5179      | Deep Learning and Computer Vision - Representation Learning for Image Classification                 |
| Computer Science | Luebeck_CS_5353           | Deep Learning for Medical Image Analysis in Changing Environments                                    |
| Computer Science | Heidelberg_CS_5298        | Deep learning in HSI for ureter segmentation and prediction of stricture after radical cystectomy    |
| Computer Science | Wuppertal_CS_5350         | Deep Learning-based Defect Detection in Visual Inspection Systems                                    |

### DAAD RISE Opportunities

|                  |                               |  |
|------------------|-------------------------------|--|
| Computer Science | Wessling_CS_PH_5227           | Describing contrail formation with neural networks   |
| Computer Science | Munich_CS_4590                | Designing a sensor fusion adaptive system for task load estimation in an Interactive Virtual Reality |
| Computer Science | Munih_PH_CS_4891              | Designing an Eye Tracking Data Dashboard for Teachers  |
| Computer Science | SanktAugustin_CS_5315         | Developer-centered Usable Security: Improving the Usability of Side-Channel Analysis Tools           |
| Computer Science | Dortmund_CS_4623              | Developing a Platform for Crawling C++-based Software Artifacts from Conan                           |
| Computer Science | Dresden_CS_CS_4574            | Developing a reinforcement learning based approach for enabling self-recovery in production lines    |
| Computer Science | Dortmund_CS_EN_4151           | Developing a scalable, research-centric interface to access software metadata in Maven               |
| Computer Science | Freiberg_CS_EN_5059           | Development and Testing of Automated Driving Functions for a Mobile Delivery Robot Prototype (UGV)   |
| Computer Science | Bochum_CS_EN_5070             | Development of a service engineering application with AR for the digital twin of a production line   |
| Computer Science | Hamm_CS_5041                  | Development of Fitness / Training Plans with AI / Machine Learning                                   |
| Computer Science | Dortmund_EN_CS_5148           | Digital Twins in Autonomous Systems - Technical University Dortmund                                  |
| Computer Science | Wuerzburg_BI_CS_5285          | EEG microstates and brain connectivity in migraine patients  |
| Computer Science | Duesseldorf_CS_5117           | Enhancing Safety-Critical AI: Data Analysis & Optimization   |
| Computer Science | Oldenburg_CS_5115             | Explainable Artificial Intelligence for Remote Sensing   |
| Computer Science | Ingolstadt_CS_EN_4104         | Fairness in Multiagent Reinforcement Learning  |
| Computer Science | Kaiserslautern_EN_CS_4658     | Fault detection in chemical processes by machine learning  |
| Computer Science | Friedberg_CS_4434             | Gaze Analysis in Conversation Settings   |
| Computer Science | FreiburgimBreisgau_CS_EN_5327 | Hand Gesture Recognition for Visually Impaired   |
| Computer Science | Tuebingen_CS_BI_4992          | Human-Computer Interaction at the Intersection of Behavioral and Computer Science                    |
| Computer Science | Lemgo_CS_5318                 | Human-Technology Interaction in the Context of Industrial Assistance Systems                         |
| Computer Science | Luebeck_CS_PH_5166            | Image Reconstruction for MERMAID, a dedicated PET scanner for small aquatic animals                  |
| Computer Science | Freiberg_EN_CS_5091           | Implementation and Validation of a Calculation Model for Angular Sections produced by Rolling        |
| Computer Science | Berlin_CS_5332                | Implementing a Multilevel Eigenvalue Solver for Sparse Matrices                                      |
| Computer Science | Munich_CS_4819                | Implementing and Evaluating Privacy Communication Patterns for Domestic Robots                       |
| Computer Science | SanktAugustin_CS_5316         | Improving the Usage of End-to-End Encryption Libraries by Applying Developer-Centered Security       |

### DAAD RISE Opportunities

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|------------------|--------------------------|--|
| Computer Science | Luebeck_EN_CS_4796       | Improving Total Body PET Image Quality Using Artificial Intelligence                                 |
| Computer Science | Zweibruecken_CS_CS_5033  | Intelligent Agents, Bots and Machine Learning  |
| Computer Science | Marburg_CS_5120          | Intern for automated analysis of the dynamics of dialectal speech using AI methods                   |
| Computer Science | Oldenburg_CS_5077        | Internship at DFKI Marine Perception in Automated Machine Learning                                   |
| Computer Science | Hanover_CS_ES_5325       | Internship at the Institute of Macroeconomics Hannover with a focus on Machine Learning              |
| Computer Science | Gummersbach_CS_CS_5302   | Internship at the TH Köln in Gummersbach on Cyberphysical interaction in remote social communication |
| Computer Science | Augsburg_CS_5186         | Internship in 3D location estimation using deep learning and physical priors                         |
| Computer Science | Wilhelmshaven_CS_EN_4538 | Internship in the field of Artificial Intelligence in the context of Stream Processing               |
| Computer Science | Paderborn_CS_5158        | Internship offer at the chair of dynamics and mechatronics in the field of Condition Monitoring      |
| Computer Science | Cottbus_EN_CS_4251       | Internship Student in Electronics/Embedded Systems/Communications Engineering                        |
| Computer Science | Tuebingen_BI_CS_5201     | Investigation of microbiome-host interactions using non-invasive imaging                             |
| Computer Science | Bielefeld_CS_4601        | Long-Term Explainability in StarCraft 2 at the University of Applied Sciences and Arts Bielefeld     |
| Computer Science | HalleSaale_CS_CH_4955    | Machine learning (ML) in Bioinformatics and Cheminformatics  |
| Computer Science | Zweibruecken_CS_CS_5067  | Machine Learning / AI for Health and Fitness   |
| Computer Science | Ingolstadt_CS_5335       | Machine Learning for optimizing public transport   |
| Computer Science | Augsburg_CS_5188         | Machine Learning Internship: Scene Graph Generation Model Development                                |
| Computer Science | Goettingen_CS_BI_5190    | Medical Informatics: Explainable AI for Biosignals   |
| Computer Science | Erlangen_CH_CS_4359      | Molecular Dynamics Simulations of G Protein-Coupled Receptors  |
| Computer Science | Rostock_EN_CS_4524       | Multi-scale in silico modeling for deep brain stimulation  |
| Computer Science | Muenchen_CS_4917         | Multi-User Interactions in Mixed Reality for AI  |
| Computer Science | Augsburg_CS_5303         | Multimodal planning for model-based reinforcement learning   |
| Computer Science | Muenchen_CS_CS_4818      | Non-Verbal Communication for a Curiosity-Based Robot   |
| Computer Science | Karlsruhe_CS_EN_5204     | Object-Oriented Power-to-X Model for Green Energy Solutions  |
| Computer Science | Bonn_CS_CS_5096          | On-the-Fly Active Perception for Mobile Manipulation   |
| Computer Science | Darmstadt_PH_CS_5219     | ONNX-Based Convolutional Neural Network for HADES RICH Ring Reconstruction                           |
| Computer Science | Dresden_EN_CS_5270       | Opensource BIMserver   |

## DAAD RISE Opportunities

|                  |                            |   |
|------------------|----------------------------|---|
| Computer Science | Berlin_CS_5331             | Optimizing Dynamic Graph Operations of a Large-Scale Network Analysis Tool                        |
| Computer Science | Zweibruecken_CS_CS_5253    | Posture Analysis with AI / Machine Learning in eSports  |
| Computer Science | Marburg_CS_4608            | Pre-boundary Lengthening in German Dialects   |
| Computer Science | Ingolstadt_CS_EN_5310      | Predicting potential anomalous states of a gas network using time series forecasting algorithms   |
| Computer Science | Kaiserslautern_EN_CS_4626  | Prediction of thermodynamic properties with machine learning                                      |
| Computer Science | Saarbruecken_CS_CS_5232    | Privacy-Preserving Data Generation through Large Language Models                                  |
| Computer Science | FrankfurtamMain_EN_CS_5352 | Prototyping a Foot Wearable with Sensor Technology for use in a Mixed Reality Application         |
| Computer Science | Ingolstadt_CS_5344         | Reinforcement Learning for Intersection Control   |
| Computer Science | Dortmund_CS_CS_5279        | Reliable Forecasting with Time Series Clustering, Forecast Model Selection and KPI Calculation    |
| Computer Science | Paderborn_CS_5194          | Research Internship on Explainable AI using Graph Attention Networks at Paderborn University      |
| Computer Science | Stuttgart_PH_CS_4943       | Reservoir Computing with Molecular Dynamics Simulations   |
| Computer Science | Kassel_CS_5299             | Resiliometer: Measuring Internet Resilience   |
| Computer Science | Aachen_CS_5005             | RISE Internship 2024 at the research college ACCESS! Transformation paths to sustainable mobility |
| Computer Science | Berlin_CS_5328             | Risks, Challenges, and Concerns About Mixed Reality   |
| Computer Science | Augsburg_CS_4876           | Robot Navigation for 5G Network Measurements  |
| Computer Science | Duesseldorf_CS_4822        | Safety related explainability and trustworthiness analysis of AI-Systems                          |
| Computer Science | Konstanz_CS_EN_5061        | SailSwarm: Swarm of Autonomous Sail Boats   |
| Computer Science | Dresden_CS_CS_4209         | Simulating Hybrid Networks of Low Earth Orbit Satellites and Road/Aerial Vehicles                 |
| Computer Science | Wessling_PH_CS_5239        | Simulations of contrail lifecycles  |
| Computer Science | Saarbruecken_CS_CS_5095    | Stealing and Actively Defending Foundational Models behind APIs                                   |
| Computer Science | Kaiserslautern_EN_CS_4979  | Technical diagnostics and monitoring on rotating machines   |
| Computer Science | Ulm_EN_4313                | Tracking and Navigation of Medical Instruments for Image Guided Therapy                           |
| Computer Science | Heidelberg_CS_BI_5340      | Training an AI to diagnose prostate cancer using transrectal ultrasound                           |
| Computer Science | Ilmenau_CS_CS_5032         | Uncertainty quantification for deep learning  |
| Computer Science | Stuttgart_CS_PH_5252       | Understanding Contrastive Neural Network Training with Collective Variables                       |
| Computer Science | Guetersloh_CS_5235         | Unlocking Innovation: Explore internship opportunities in our IoT-Factory!                        |

### DAAD RISE Opportunities

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|------------------|------------------------------------|--|
| Computer Science | Mainz_CH_CS_5324                   | Unraveling Aging-Associated changes in microglial landscape based on single cell sequencing based da |
| Computer Science | Munchen_CS_CS_4653                 | VR as Technology for Evaluating Novel Phenomena  |
| Computer Science | Konstanz_CS_CS_5024                | WatchPlant: Communicating with Plants?!  |
| Computer Science | Konstanz_CS_CS_4923                | WatchPlant: Robot-plant Bio-hybrid Systems   |
| Computer Science | Kassel_CS_5362                     | Web Game Development   |
| Computer Science | Darmstadt_EN_CS_5152               | Work on a novel method for the simulation of solid bodies  |
| Computer Science | Dresden_CS_4692                    | Working in an Industrial Fog Computing Environment   |
| Computer Science | Dresden_CS_5314                    | Working with Reinforcement Learning for Robot Manipulation   |
| Earth Science    | Freiberg_ES_4232                   | Analyzing Clogging and Scaling in Aquifer Thermal Energy Storage (ATES) Systems with Lab Experiments |
| Earth Science    | Eichstaett_ES_BI_4973              | Birch Pollen Production in Ingolstadt, Germany   |
| Earth Science    | BarsbuettelWillinghusen_BI_ES_5142 | Carbon fluxes and plant-soil interactions in estuarine alluvial forests at the Elbe River            |
| Earth Science    | Muencheberg_BI_ES_4998             | Changes in habitat quality and biological soil properties through the use of field robots            |
| Earth Science    | Freiberg_ES_CH_5125                | Characterizing chemical behavior of heavy metals to recover valuable material from lake sediments    |
| Earth Science    | Bochum_EN_4856                     | Circular Economy: Pilot factory for circular end-of-life strategies for Light Electric Vehicles      |
| Earth Science    | Potsdam_ES_CS_5191                 | Cryostratigraphic characterization of permafrost sediment cores using X-ray microtomographic imaging |
| Earth Science    | Muencheberg_BI_ES_4995             | Data collection to assess physical soil property changes through the use of field robots             |
| Earth Science    | Freiberg_ES_ES_5357                | Determining the natural concentration of uranium in groundwater from sandstone cores                 |
| Earth Science    | Greifswald_ES_BI_5229              | Experimental Plant Ecology - Coping with climate change  |
| Earth Science    | Goettingen_ES_BI_5256              | Exploring insect mass outbreaks and carbon cycling in forest ecosystems                              |
| Earth Science    | Berlin_ES_EN_5367                  | Feasibility Study on Green and Energy Efficient Community in Berlin: A Case Study on Waßmannsdorf    |
| Earth Science    | Hanover_CS_ES_5325                 | Internship at the Institute of Macroeconomics Hannover with a focus on Machine Learning              |
| Earth Science    | Bonn_ES_4968                       | Internship in investigating the LULCC and its implications on environmental factor                   |
| Earth Science    | Bonn_ES_4961                       | Internship Reducing water stress of maize by accessing subsoil resources Project: Soil3 Sustainable  |
| Earth Science    | Bonn_ES_5039                       | Investigating impacts of climate extremes on the hydrological system in Europe                       |
| Earth Science    | Berlin_EN_ES_5258                  | Just Energy System Planning under a Changing Climate   |
| Earth Science    | Kiel_ES_BI_5262                    | Lipid biomarker recycling by archaea   |

### DAAD RISE Opportunities

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|---------------|-------------------------------|---|
| Earth Science | Muencheberg_ES_5064           | Mapping soil nitrogen dynamics in spatio-temporally diversified cropping systems (patchCROP)        |
| Earth Science | Bremen_ES_PH_5028             | Meso- to Submesoscale Turbulence in the Ocean   |
| Earth Science | Potsdam_BI_ES_5040            | Microbial Ecology: using DNA-SIP to understand microbe- plant interactions in wetlands              |
| Earth Science | Hamburg_ES_BI_4471            | Ocean life on the brink of extinction: Ostracod community across the Permo-Triassic climate crisis. |
| Earth Science | Freiberg_ES_ES_4911           | Phytogeochemical data analysis for mineral exploration  |
| Earth Science | Heidelberg_ES_5021            | Research Internship, Heidelberg University, Germany, Earth Sciences                                 |
| Earth Science | Freiburg_ES_5213              | Resilient regeneration methods to restore forests in a climate change hot spot                      |
| Earth Science | Hamburg_ES_4600               | Response of shallow marine prokaryote ecosystems to the Permo-Triassic climate crisis               |
| Earth Science | Erfurt_ES_ES_4567             | Sediments & Soils as recorders of past climates & environmental change in the Thuringian Forest     |
| Earth Science | Freising_ES_ES_5345           | Small but powerful?The role of small urban green spaces for human thermal comfort in climate change |
| Earth Science | PlaneggMartinsried_BI_ES_5018 | Uncovering the true potential of true crabs – investigating early fossils of Brachyura              |
| Earth Science | Kiel_ES_5169                  | Unravelling past Southern Ocean dynamics using stable isotope analysis on foraminifera              |
| Earth Science | Hamburg_ES_ES_4969            | Urban Riverscapes: Participation for Enhanced Restoration   |
| Engineering   | Hannover_CH_EN_4633           | 1D -Graphene electrospun nanofibers for electrode materials for hydrogen fuel cells                 |
| Engineering   | Duisburg_EN_5209              | 2D LIGHT EMITTING DEVICES WITH OXIDE INJECTION LAYERS   |
| Engineering   | Munich_EN_4870                | 3D Printing with Concrete   |
| Engineering   | Freiberg_EN_EN_5224           | 3D Structural Characterization of Metallurgical Slag using X-ray Microscopy                         |
| Engineering   | Wuppertal_EN_EN_5017          | 3D-printing of intermetallic magnets by Electron Beam Melting                                       |
| Engineering   | Coburg_EN_4993                | A new Sensor for E-Mobility   |
| Engineering   | Garbsen_EN_4987               | A1 – Influence of the local microstructure on the workability of extruded composite materials       |
| Engineering   | Karlsruhe_EN_EN_5288          | Advanced Electrochemical Characterization and Modelling of PEM Fuel Cells for Mobile Applications   |
| Engineering   | Bonn_BI_EN_4641               | Advanced Methods in Brain Stimulation and Applications to Reward Processing                         |
| Engineering   | Wilhelmshaven_EN_EN_5185      | Aerial inspection and surveying of critical high voltage and power infrastructure via drones        |
| Engineering   | Wolfsburg_EN_CS_5233          | AI-based product development and optimization   |
| Engineering   | Erlangen_EN_5338              | Analysis and Processing of Synthetic Aperture Radar (SAR) Data Acquired Using Drones                |
| Engineering   | Aachen_EN_EN_5053             | Analysis of renewable fuel supply chains under uncertainty  |
| Engineering   | Dresden_EN_EN_5132            | Analysis of the Material Properties of 3D Printed Bone Graft Substitutes                            |
| Engineering   | Jena_EN_BI_4999               | Antimicrobial and cell promoting structures and properties of nano structured titanium              |

### DAAD RISE Opportunities

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|-------------|----------------------------|---|
| Engineering | Freiberg_EN_5110           | Application of green solvents to remove ionomer-containing binder for PEM electrolyzer recycling    |
| Engineering | Muenchen_EN_BI_5277        | Application of Microbial Induced Carbonate Precipitation (MICP) in Civil Engineering                |
| Engineering | Wuppertal_CS_EN_4627       | Artificial Intelligence and Deep Learning - Generative Models for Flood Forecasting                 |
| Engineering | Brunswick_CS_EN_4811       | Artificial intelligence for systematic and efficient production of battery materials                |
| Engineering | Wuppertal_CS_EN_5141       | Artificial Intelligence in Production: Deep Reinforcement Learning for Scheduling Problems          |
| Engineering | Bochum_EN_4958             | Assessing implementation possibilities for international energy projects                            |
| Engineering | Juelich_EN_5348            | Assessment of biodegradation of neural implants   |
| Engineering | Geesthacht_EN_CH_5311      | Atomic Force Microscopy (AFM) investigation of the optoelectronic properties of GaN thin films      |
| Engineering | Aachen_EN_4622             | Atomistic Design of Catalysts for Purifying Harmful Exhaust gases                                   |
| Engineering | Stuttgart_EN_EN_5330       | Automated Fibre Placement for Thermoplastic Composite Manufacturing                                 |
| Engineering | Kaiserslautern_EN_5274     | Bioactive compounds from plant cell culture   |
| Engineering | Hof_EN_4636                | BIOGENIC BY-PRODUCTS FROM REGIONAL WINERIES AS BIO-ADDITIVES AND FUNCTIONAL FILLERS FOR BIOPOLYMERS |
| Engineering | Kaiserslautern_EN_5154     | Biotechnological processes towards a sustainable future   |
| Engineering | FreiburgimBreisgau_EN_5360 | Blood pressure estimation through ultrasound: a validation study                                    |
| Engineering | Berlin_EN_EN_4436          | Building Information Modelling (BIM) for Building Services in Existing Buildings.                   |
| Engineering | Bochum_EN_4856             | Circular Economy: Pilot factory for circular end-of-life strategies for Light Electric Vehicles     |
| Engineering | Kiel_EN_PH_5083            | Coil Calibration for 7T MRI with a quantitative T1/T2 phantom                                       |
| Engineering | Kaiserslautern_CS_EN_4865  | Computer science in urban water management: remote sensing, digitization, planning & optimization   |
| Engineering | Karlsruhe_EN_CS_5097       | Data Science and Algorithm building for dispatching Autonomous Mobile Robots                        |
| Engineering | Wuppertal_EN_5034          | Design of a multi-joint hinge with a robot arm  |
| Engineering | Goslar_EN_5046             | Design of Cells and Feed Distributors for Industrial Alkaline Water Electrolysis                    |
| Engineering | Freiberg_CS_EN_5059        | Development and Testing of Automated Driving Functions for a Mobile Delivery Robot Prototype (UGV)  |
| Engineering | Juelich_EN_5156            | Development of a Direct Air Capture Adsorption Process  |
| Engineering | Kaiserslautern_EN_4989     | Development of a Lab-Scale DC Microgrid for Energy Management of Chemical Processes                 |
| Engineering | Aachen_EN_PH_5358          | Development of a measuring box to monitor the energy input during laser beam welding                |
| Engineering | Dresden_EN_EN_5263         | Development of a Nanopositioning Stage for Ultra Precision Manufacturing                            |
| Engineering | Bochum_CS_EN_5070          | Development of a service engineering application with AR for the digital twin of a production line  |

## DAAD RISE Opportunities

|             |                                 |   |
|-------------|---------------------------------|---|
| Engineering | Kaiserslautern_EN_BI_5103       | Development of a vitality measurement method for <i>S. cerevisiae</i> wine                                      |
| Engineering | Koeln_EN_EN_4831                | Development of cementitious materials with recycled combustion slag   |
| Engineering | Bochum_EN_5007                  | Development of decentralised energy systems with green hydrogen for the Sub-Saharan Africa region               |
| Engineering | Koeln_EN_4710                   | Development of Fibre-Reinforced Ceramic Composite from Lunar Simulant   |
| Engineering | Geesthacht_EN_CH_5242           | Development of polymeric thin-film composite membranes for CO <sub>2</sub> separations                          |
| Engineering | Kiel_EN_PH_4674                 | Development of scaled-up patient-specific aneurysm models for accurate in vitro MRI                             |
| Engineering | Hof_EN_4637                     | Development of sustainable own-fiber-reinforced composites from biopolymers                                     |
| Engineering | ClausthalZellerfeld_EN_5211     | Development of Tailored Catalyst Support Particles via an Innovative 3D Printing Process                        |
| Engineering | Dresden_EN_4374                 | Development of transfer functions to study mass transfer in porous solids by frequency response                 |
| Engineering | Dortmund_EN_CS_5148             | Digital Twins in Autonomous Systems - Technical University Dortmund   |
| Engineering | Berlin_EN_4932                  | Eco-Friendly Energy Systems in Urban Districts: Planning and Simulating   |
| Engineering | Kaiserslautern_EN_5085          | Efficient Fluid Distribution in Trickle Bed Reactors Towards a Sustainable Future                               |
| Engineering | Dresden_EN_5107                 | Efficient manufacture methods of thermoplastic composite structures for future mobility applications            |
| Engineering | Reutlingen_EN_5010              | Electrical Characterization of Gallium-Nitride Semiconductor Half-Bridge Power Modules                          |
| Engineering | Kaiserslautern_EN_BI_5022       | Electrobiotechnology – Microbial electro-fermentation for electricity-driven bioproduction of valua             |
| Engineering | Juelich_EN_EN_5326              | Electrochemical Aging Test for Flexible 3D Neural Implants  |
| Engineering | ClausthalZellerfeld_EN_4956     | Electrochemical CO <sub>2</sub> Reduction at Silver Catalysts   |
| Engineering | Aachen_EN_CH_4722               | Electrochemical Fuel Production:Optimizing the Oxygen Evolution Reaction in CO <sub>2</sub> Reduction Condition |
| Engineering | ClausthalZellerfeld_EN_4854     | Enabling Load-Flexible Ammonia Synthesis for Power-to-X Processes   |
| Engineering | Freiberg_EN_5317                | Energetic consideration of the heat flow thermography   |
| Engineering | Garching_EN_PH_5260             | Engineering and Design of the EPOS Stellarator  |
| Engineering | Braunschweig_EN_5290            | Enhancing insights into the battery production process through modeling and prediction with artifici            |
| Engineering | EggensteinLeopoldshafen_EN_5182 | Environmentally friendly raw material recovery through the pyrolysis of lithium-ion batteries                   |
| Engineering | Dresden_EN_EN_4986              | Experimental and numerical analysis of an impact force measurement system                                       |
| Engineering | Karlsruhe_EN_5050               | Experimental determination of heat transport parameters for fixed bed reactors                                  |
| Engineering | Paderborn_EN_4997               | Experimental investigation of fluid dynamics and mass transfer in structured and sandwich packings              |

### DAAD RISE Opportunities

|             |                               |  |
|-------------|-------------------------------|--|
| Engineering | Senftenberg_EN_EN_5199        | Experimental investigations on the thermomechanical behaviour of additively manufactured metals        |
| Engineering | Kaiserslautern_EN_EN_4508     | Experimental Power Electronic Converters with Planar Magnetics   |
| Engineering | Hannover_EN_5044              | Experimental testing and simulation of 3D-printed structures   |
| Engineering | Garbsen_EN_EN_4988            | Experimental-numerical methods for predicting the damage and failure of semi-finished hybrid parts     |
| Engineering | Ingolstadt_CS_EN_4104         | Fairness in Multiagent Reinforcement Learning  |
| Engineering | Rostock_EN_4507               | Fast Method for the Solution of Challenging Bioelectromagnetic Problems with Composite Structures      |
| Engineering | Kaiserslautern_EN_CS_4658     | Fault detection in chemical processes by machine learning  |
| Engineering | Berlin_ES_EN_5367             | Feasibility Study on Green and Energy Efficient Community in Berlin: A Case Study on Waßmannsdorf      |
| Engineering | Kaiserslautern_EN_5054        | Fermentation of <i>Aspergillus niger</i> for the production of citric acid in the future energy system |
| Engineering | Goslar_EN_CH_4863             | Fiber optical sensors and modelling for lithium-ion batteries in the aspect of battery safety          |
| Engineering | Duisburg_EN_5012              | Flexible photodetectors using 2D perovskite as direct absorber for wavelength-selective photodetecti   |
| Engineering | Wilhelmshaven_EN_EN_5225      | Flight experiments and sensor integration for detection and classification of marine plastic litter    |
| Engineering | Freiburg_EN_4733              | Freeze Extrusion System to Manufacture Porous Materials with Functional Gradients                      |
| Engineering | Chemnitz_EN_5282              | Good Vibrations - Ultrasonic vibrations for enhanced machining   |
| Engineering | Reutlingen_EN_EN_4625         | H <sub>2</sub> -Grid: Optimized Production of Hydrogen from Renewable Energy                           |
| Engineering | FreiburgimBreisgau_CS_EN_5327 | Hand Gesture Recognition for Visually Impaired   |
| Engineering | Emden_EN_PH_4318              | Heat dissipation for low pressure tube transport/ Magnetic Levitation/ Aerodynamics                    |
| Engineering | Duisburg_EN_EN_5226           | Heterostructures based on 2D materials for efficient photodetection                                    |
| Engineering | Karlsruhe_EN_EN_5111          | High-Temperature Electrolysis for Sustainable Energy Conversion  |
| Engineering | Freiberg_EN_4991              | High-temperature plasma gasification of plastic wastes   |
| Engineering | Braunschweig_EN_CH_5294       | How does the catalyst coating affect the production of green hydrogen?                                 |
| Engineering | Aachen_EN_EN_5265             | Human-Machine Arbitration in the field of cooperative vehicle guidance and control                     |
| Engineering | MuelheimanderRuhr_C_H_EN_5361 | Hydrogen separation from natural gas / hydrogen mixtures   |
| Engineering | Kiel_CH_EN_5259               | Hydrophobization of metal-organic frameworks for the selective detection of VOCs                       |
| Engineering | Freiberg_EN_CS_5091           | Implementation and Validation of a Calculation Model for Angular Sections produced by Rolling          |
| Engineering | Luebeck_EN_CS_4796            | Improving Total Body PET Image Quality Using Artificial Intelligence                                   |
| Engineering | Duisburg_EN_5137              | In situ investigation of (trans-)formation of metal oxide nanoparticles during CVS process             |
| Engineering | Dresden_EN_EN_5289            | Internship in the field of materials science, electrochemistry, chemistry                              |

## DAAD RISE Opportunities

|             |                                |  |
|-------------|--------------------------------|--|
| Engineering | Cottbus_EN_CS_4251             | Internship Student in Electronics/Embedded Systems/Communications Engineering                        |
| Engineering | FreiburgimBreisgau_CH_EN_5187  | Internship – Development of metal-air batteries  |
| Engineering | Cottbus_EN_4756                | Internship: Analog Electronics Design  |
| Engineering | Chemnitz_EN_EN_5003            | Joining Aluminum based materials by using Copper nanoparticles (nanojoining)                         |
| Engineering | Berlin_EN_ES_5258              | Just Energy System Planning under a Changing Climate   |
| Engineering | Braunschweig_EN_5304           | Laser Absorption Spectroscopy based Dynamic Temperature Measurement                                  |
| Engineering | Bayreuth_EN_EN_4839            | Li-Ion battery manufacturing – Experimental and simulative investigation of the cell formation       |
| Engineering | Berlin_EN_CH_5072              | Liquid Alkali-Metal in Batteries: Designing Compact, High-Power Anodes                               |
| Engineering | Augsburg_EN_4124               | Load-Bearing Behavior of Non-Metallic Reinforced Concrete Structures                                 |
| Engineering | Braunschweig_EN_5305           | Machine Learning in Chemical Kinetic Modeling for Sustainable Aviation Fuels                         |
| Engineering | Kaiserslautern_EN_EN_5000      | Magnetic design of permanent magnet excited rotors of electric axial flux machines with PCB windings |
| Engineering | Berlin_EN_EN_4805              | Material characterization for high-temperature alloys in additive manufacturing                      |
| Engineering | Gummersbach_EN_5014            | Measurement of chemical changes of EPDM rubber compounds with sustainable raw materials due to aging |
| Engineering | Luebeck_EN_PH_5135             | Mermaid: A PET Prototype for Adult Zebrafish - Practical Applications and Optimization               |
| Engineering | Heidelberg_EN_EN_5068          | Meta-material based mechanically tuneable 3d scaffolds for cells                                     |
| Engineering | Freiberg_EN_5228               | Methanol-to-gasoline: Development of a climate-neutral fuel for gasoline engines                     |
| Engineering | ClausthalZellerfeld_EN_PH_4981 | Metrology and Control Engineering  |
| Engineering | Hamburg_EN_EN_5159             | Modeling and Simulation of a Wave Energy Converter   |
| Engineering | Kaiserslautern_EN_CH_4258      | Modeling and simulation towards a sustainable future   |
| Engineering | Kaiserslautern_EN_5108         | Modeling Parasitic Effects of PCB Traces to Improve the Switching Performance of GaN Transistors     |
| Engineering | Kaiserslautern_EN_4275         | Molecular Thermodynamics of Interfaces   |
| Engineering | Rostock_EN_CS_4524             | Multi-scale in silico modeling for deep brain stimulation  |
| Engineering | Juelich_CH_EN_5272             | Multi-target Electrochemical Aptamer-based Biosensor for the detection of respiratory diseases       |
| Engineering | Kaiserslautern_EN_5241         | Municipal green waste as feedstock for fermentations   |
| Engineering | Berlin_EN_5026                 | MXenes for energy storage  |
| Engineering | Ilmenau_EN_EN_5223             | Nanoimprint Lithography for Advanced Microsystems  |
| Engineering | Hamburg_EN_4916                | Navigation and Control for Agile Micro Underwater Robots   |
| Engineering | Kaiserslautern_EN_4618         | NMR spectroscopy techniques in engineering thermodynamics and process engineering                    |
| Engineering | Nordhausen_EN_5123             | Novel Systems Performance Analyses of today's WiFi Networks  |

### DAAD RISE Opportunities

|             |                            |  |
|-------------|----------------------------|--|
| Engineering | Karlsruhe_CS_EN_5204       | Object-Oriented Power-to-X Model for Green Energy Solutions  |
| Engineering | Dresden_EN_CS_5270         | Opensource BIMserver   |
| Engineering | Kaiserslautern_EN_EN_5160  | Optimization of yeast medium for optimal propagation of <i>Saccharomyces cerevisiae</i> for fermentation o |
| Engineering | Aachen_EN_EN_5205          | Optimized catalyst layers for efficient hydrogen production  |
| Engineering | Kiel_PH_EN_4584            | Parahydrogen-induced hyperpolarization and magnetic resonance imaging                                      |
| Engineering | Kiel_PH_EN_5343            | Parahydrogen-induced hyperpolarization in the magnetic low-field regime                                    |
| Engineering | FreiburgimBreisgau_EN_5323 | PDMS as an ideal microfluidic material   |
| Engineering | Ulm_EN_CH_4738             | Photochemical Reaction Engineering for Sustainability and the Energy Transition                            |
| Engineering | Emmerthal_PH_EN_5138       | Precision analysis of a solar simulator with xenon lamp for solar module technology                        |
| Engineering | Ingolstadt_CS_EN_5310      | Predicting potential anomalous states of a gas network using time series forecasting algorithms            |
| Engineering | Kaiserslautern_EN_CS_4626  | Prediction of thermodynamic properties with machine learning   |
| Engineering | Kaiserslautern_EN_4687     | Process engineering for production of ethyl-butyrate   |
| Engineering | Bochum_EN_4815             | Process Simulation Models for Mechanised Tunneling Projects  |
| Engineering | FrankfurtamMain_EN_CS_5352 | Prototyping a Foot Wearable with Sensor Technology for use in a Mixed Reality Application                  |
| Engineering | Aachen_EN_4621             | Rational Design of Porous Carbon Anodes for Low-Cost Batteries   |
| Engineering | Freiberg_CH_EN_4632        | Recovery of lithium from Li-ion battery recycling effluents through ion-exchange techniques                |
| Engineering | Osnabrueck_CH_EN_5206      | Recyclability of medical plastic disposables   |
| Engineering | Bochum_EN_EN_5146          | Renewable Energy Modelling in the District of the Future   |
| Engineering | Berlin_EN_EN_4954          | Research internship in Berlin in the field of urban water management                                       |
| Engineering | Bochum_EN_4814             | Research on the Face Stability for Shield Tunnelling   |
| Engineering | Dortmund_EN_EN_5124        | RISE Internship at Institute of High Voltage Engineering, TU Dortmund University                           |
| Engineering | Konstanz_CS_EN_5061        | SailSwarm: Swarm of Autonomous Sail Boats  |
| Engineering | Munich_EN_EN_4838          | Scattering of fly ash properties and their effect on fresh and hardened concrete performance               |
| Engineering | Freiberg_EN_4714           | Selective catalytic H <sub>2</sub> -deNO <sub>x</sub> at low temperatures                                  |
| Engineering | Coburg_EN_EN_5060          | Setup and commissioning of a cryogenic test rig  |
| Engineering | Dresden_CS_CS_4209         | Simulating Hybrid Networks of Low Earth Orbit Satellites and Road/Aerial Vehicles                          |
| Engineering | Braunschweig_EN_5128       | Solvent Recycling Using Wiped Film Evaporators   |
| Engineering | Aachen_BI_EN_5306          | Stem Cell-derived 3D In Vitro Model of the Outer Retina  |
| Engineering | Juelich_EN_BI_5333         | Sterilization and Aging Tests for Electrical and Mechanical Properties of Flexible Neural Implants         |
| Engineering | Freiberg_EN_5042           | Study of Parameters for Tin Yield from Hydrogen-based Cassiterite Reduction                                |

DAAD RISE Opportunities

|             |                                 |   |
|-------------|---------------------------------|---|
| Engineering | Dortmund_EN_5145                | Supply Chain Simulation - TU Dortmund University (Germany)  |
| Engineering | EggensteinLeopoldshafen_EN_5019 | Sustainable cement - Recycled binders from concrete wastes  |
| Engineering | Duisburg_EN_EN_5058             | Synthesis and Electrochemical Analysis of Si Nanoparticles for Applications in Li-Ion Batteries       |
| Engineering | Garbsen_EN_4862                 | Tailored Forming of load-adapted hybrid components  |
| Engineering | Kaiserslautern_EN_CS_4979       | Technical diagnostics and monitoring on rotating machines   |
| Engineering | Geesthacht_EN_5238              | Testing the degradation of Mg-5Gd implant prototypes created through Additive Manufacturing technique |
| Engineering | Stuttgart_EN_EN_5116            | Thermal analysis of corrosion mechanisms in metallic latent heat storage systems                      |
| Engineering | Duisburg_EN_5015                | Thermo-economic analysis of Carnot Batteries  |
| Engineering | Kaiserslautern_EN_PH_5001       | Thermocapillary microswimmers (experimental, CFD)   |
| Engineering | Kaiserslautern_EN_4643          | Thermodynamics of the All Vanadium Redox Flow Battery   |
| Engineering | Braunschweig_EN_EN_5004         | THEWA – Thermal management of hydrogen refueling stations   |
| Engineering | Hamburg_EN_4851                 | Trajectory Tracking Control of a Soft Robot   |
| Engineering | Freiburg_EN_5164                | Triboelectric Materials   |
| Engineering | Ulm_EN_5144                     | UAV-Based Tomographic Radar Imaging   |
| Engineering | Goslar_EN_5301                  | Upscaling process of cell optimization for industrial application in alkaline water electrolysis      |
| Engineering | Kaiserslautern_EN_4249          | Use of phototrophic biofilms in the agricultural sector to improve plant growth                       |
| Engineering | ClausthalZellerfeld_EN_4965     | Utilizing gas diffusion electrodes for alkaline water electrolysis                                    |
| Engineering | ClausthalZellerfeld_EN_5075     | Wireless communication technology and RF based sensing  |
| Engineering | Darmstadt_EN_CS_5152            | Work on a novel method for the simulation of solid bodies   |
| Engineering | Duisburg_EN_5192                | X-ray characterization of UV laser processed nanoparticles  |
| Physics     | Mainz_PH_PH_5307                | Antiferromagnetic skyrmionic spin textures in synthetic antiferromagnets                              |
| Physics     | Muenchen_CS_4926                | Deep Learning-based turbulence prediction for Urban Air Mobility Vehicles                             |
| Physics     | Siegen_PH_4962                  | 2D materials - preparation and characterization of ultrathin semiconductors                           |
| Physics     | Duesseldorf_PH_CS_4855          | An Internship in AI for Optics in autonomus driving- machine vision, sensor calibration & fusion      |
| Physics     | Dresden_PH_5105                 | Analytical Molecular Dynamics Simulations of Irradiation Effects in Two-Dimensional Materials         |
| Physics     | Oldenburg_PH_PH_5127            | Analyzing the electronic properties of ternary multi-alkali antimonides with ab-initio methods        |
| Physics     | Potsdam_PH_5220                 | Artificial cells and nanotubes, a step towards primitive neural networks                              |
| Physics     | Freiberg_PH_4582                | Atomic Layer Deposited Transparent Conductive Oxides for Silicon Photovoltaics (ALD-TCOs for PV)      |
| Physics     | Kaiserslautern_PH_5268          | BEC-BCS crossover on the shell  |

### DAAD RISE Opportunities

|         |                        |  |
|---------|------------------------|--|
| Physics | Duesseldorf_PH_5049    | Building Laser systems in the context of quantum optics  |
| Physics | Berlin_PH_5030         | Building the Quantum Internet in Berlin  |
| Physics | Berlin_PH_5295         | Cathodoluminescence spectroscopy of defects in 2D materials  |
| Physics | Berlin_CH_PH_4982      | Chiral sensitive Anion Photoelectron Spectroscopy  |
| Physics | Kiel_EN_PH_5083        | Coil Calibration for 7T MRI with a quantitative T1/T2 phantom                                      |
| Physics | Dortmund_PH_PH_5292    | Collective excitations in correlated quantum materials   |
| Physics | Juelich_PH_CS_5364     | Computer simulations of active matter: Predicting structure and dynamics of the cytoskeleton       |
| Physics | Goettingen_PH_CH_5221  | Correlating the magnetic order and electrochemical activities of thin films                        |
| Physics | Giessen_PH_5126        | Cubic III-nitride semiconductor synthesis for LED applications                                     |
| Physics | Hannover_PH_5025       | Dark energy search using atom interferometry in the Einstein-Elevator                              |
| Physics | Wessling_CS_PH_5227    | Describing contrail formation with neural networks   |
| Physics | Munih_PH_CS_4891       | Designing an Eye Tracking Data Dashboard for Teachers  |
| Physics | Dortmund_PH_5071       | Determining efficiencies of the LHCb Experiment trigger by data-driven methods                     |
| Physics | Bonn_BI_PH_5356        | Developing and characterizing fluorescent marker strategies for quantitative super-res. microscopy |
| Physics | Aachen_EN_PH_5358      | Development of a measuring box to monitor the energy input during laser beam welding               |
| Physics | Dortmund_PH_4935       | Development of diamond based detectors   |
| Physics | Goettingen_PH_5047     | Development of High-Speed Readout System for Future ATLAS Inner-Tracker Detector Upgrade           |
| Physics | Kiel_EN_PH_4674        | Development of scaled-up patient-specific aneurysm models for accurate in vitro MRI                |
| Physics | Kaiserslautern_PH_4775 | Disorder and the quantum boomerang in Fermi gases  |
| Physics | Kiel_PH_BI_5155        | Dissolution Dynamic Nuclear Polarization for UV and Xenon Gas                                      |
| Physics | Garching_EN_PH_5260    | Engineering and Design of the EPOS Stellarator   |
| Physics | Potsdam_BI_PH_5261     | Exploring mechano-sensitive channels on photoswitchable lipid membranes                            |
| Physics | Mainz_PH_PH_5293       | Exploring Spin Insulatronics for ultra low power Information Transport                             |
| Physics | Hamburg_PH_PH_4688     | Functionalization of 3D nano-printed Microchannel Plate Detectors                                  |
| Physics | Karlsruhe_PH_PH_4980   | GRAND Detection of High-Energy Astrophysical Particles   |
| Physics | Emden_EN_PH_4318       | Heat dissipation for low pressure tube transport/ Magnetic Levitation/ Aerodynamics                |
| Physics | Hamburg_PH_PH_5122     | Hunt for Electrons with X-Ray Flashlight   |
| Physics | Luebeck_PH_5140        | Image reconstruction for imaging in proton therapy by implementation of a filter step              |
| Physics | Luebeck_CS_PH_5166     | Image Reconstruction for MERMAID, a dedicated PET scanner for small aquatic animals                |
| Physics | Bonn_PH_BI_4415        | Improving Single-Molecule Super-Resolution Imaging by Event-based Sensors                          |
| Physics | Giessen_PH_5207        | In-Flight data analysis at the Fragment Separator FRS at GSI                                       |
| Physics | Mainz_PH_4927          | Information transport via spins in 2D anti-ferromagnetic materials                                 |

### DAAD RISE Opportunities

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|---------|------------------------------------|---|
| Physics | Jena_PH_BI_5027                    | Internship Opportunity at the ENT/Research Laboratories in Jena within the Scope of RISE            |
| Physics | Berlin_PH_5149                     | Investigation of Intracellular Wetting: Droplet-Membrane Interactions                               |
| Physics | Ulm_PH_4686                        | Laser cleaning of graphene membranes for a matter-wave diffraction experiment                       |
| Physics | Dortmund_PH_4949                   | Lipid Phase Transitions in Living Systems   |
| Physics | Mainz_PH_5312                      | Low Power Spin Switching for Memory and Logic Green IT devices                                      |
| Physics | Mainz_PH_5320                      | Magnetic skyrmion diffusion and lattice formation as two-dimensional model systems                  |
| Physics | Mainz_PH_PH_5319                   | Magnetic skyrmion dynamics and their applications in non-conventional computing                     |
| Physics | Berlin_PH_5355                     | Magnetical characterization of the novel material $\alpha$ -FeGe <sub>2</sub> using SQUID           |
| Physics | Luebeck_EN_PH_5135                 | Mermaid: A PET Prototype for Adult Zebrafish - Practical Applications and Optimization              |
| Physics | Bremen_ES_PH_5028                  | Meso- to Submesoscale Turbulence in the Ocean   |
| Physics | ClausthalZellerfeld_EN_PH_4981     | Metrology and Control Engineering   |
| Physics | Juelich_PH_5346                    | Modelling of Intelligent Active Matter Systems  |
| Physics | Emmerthal_PH_5218                  | Module integration of perovskite/silicon tandem solar cells   |
| Physics | Garching_PH_5089                   | Multiphase turbulence: Towards understanding 3-phase astrophysical gas                              |
| Physics | Giessen_PH_4903                    | Neutron detector development  |
| Physics | Darmstadt_PH_CS_5219               | ONNX-Based Convolutional Neural Network for HADES RICH Ring Reconstruction                          |
| Physics | Kiel_PH_EN_4584                    | Parahydrogen-induced hyperpolarization and magnetic resonance imaging                               |
| Physics | Kiel_PH_EN_5343                    | Parahydrogen-induced hyperpolarization in the magnetic low-field regime                             |
| Physics | Dortmund_PH_PH_5234                | Periodically pulsed superconductors   |
| Physics | Wessling_PH_5121                   | Physics-based evaluation of a machine-learning model for thunderstorm detection                     |
| Physics | Emmerthal_PH_EN_5138               | Precision analysis of a solar simulator with xenon lamp for solar module technology                 |
| Physics | Garching_PH_4971                   | Precision Spectroscopy of Atomic Hydrogen   |
| Physics | EggensteinLeopoldshafen_PH_PH_5236 | Properties of the Radio Emission from Cosmic Ray Air-Showers for the GRAND Observatory              |
| Physics | Zweibruecken_BI_PH_4225            | Quantitative Raman spectroscopy and staining to quantify chromatin condensation of individual sperm |
| Physics | Leipzig_PH_PH_5134                 | Quantum Sensors in Diamond for Nanoscale Sensing  |
| Physics | Giessen_PH_PH_4726                 | Quasiparticle control in 2D systems   |
| Physics | Heidelberg_PH_5016                 | Range prediction in magnetic resonance imaging-guided particle therapy                              |
| Physics | Stuttgart_PH_CS_4943               | Reservoir Computing with Molecular Dynamics Simulations   |
| Physics | Rostock_PH_4705                    | Shedding light on the missing photons in diamond quantum sensors                                    |
| Physics | Dortmund_PH_5101                   | Simulating Quantum Systems with Quantum Computers   |

### DAAD RISE Opportunities

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|---------|------------------------------------|--|
| Physics | Wessling_PH_CS_5239                | Simulations of contrail lifecycles   |
| Physics | Juelich_PH_4835                    | Simulations of self-propelled particles in channels  |
| Physics | Giessen_PH_5329                    | Space charge studies in the Cryogenic Stopping Cell (CSC) by simulations and/or experimental work    |
| Physics | EggensteinLeopoldshafen_PH_PH_5212 | Statistical Analysis of Measurement Noise in the Radio Detector of the Pierre Auger Observatory      |
| Physics | Bonn_BI_PH_4431                    | Super-resolution microscopy to study phenotypes of altered cell cycle and genetic diseases in yeast  |
| Physics | Dresden_PH_PH_5249                 | Theoretical description of pattern scaling in growing and regenerating tissues.                      |
| Physics | Kaiserslautern_PH_5177             | Theory for Photon Bose-Einstein Condensates  |
| Physics | Kaiserslautern_EN_PH_5001          | Thermocapillary microswimmers (experimental, CFD)  |
| Physics | Dortmund_PH_5180                   | Time-resolved ARPES studies of antiferromagnetic 2D van der Waals materials                          |
| Physics | Hamburg_BI_PH_4808                 | Time-resolved imaging of neuronal growth of human induced stem cell-derived neurons in confined micr |
| Physics | Dortmund_PH_5363                   | Time-resolved magneto-optical studies of antiferromagnetic 2D van der Waals materials                |
| Physics | Schnefeld_CH_PH_4595               | Tracking excited state dynamics of functional molecules by optical transient absorption spectroscopy |
| Physics | Juelich_PH_PH_5321                 | Tuning with Magnetite Thin Film: Monitoring Phase Transitions at the Heterostructure Interface       |
| Physics | Duisburg_PH_5162                   | Ultrafast charge transfer at interfaces analysed with time-resolved second harmonic spectroscopy     |
| Physics | Stuttgart_CS_PH_5252               | Understanding Contrastive Neural Network Training with Collective Variables                          |