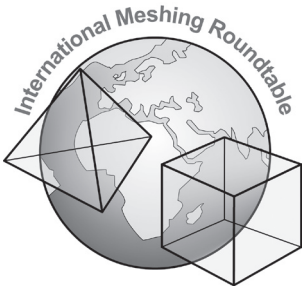
At-a-Glance Schedule

siam 2026 | Conference on Parallel Processing for Scientific Computing



March 3–6, 2026 • Zuse Institute Berlin and Free University of Berlin
Berlin, Germany

SIAM Conference on Parallel Processing for Scientific Computing (PP26)

being held jointly with

SIAM International Meshing Roundtable Workshop 2026 (IMR26)

Online Program and Mobile App

Attendees are encouraged to view the Online Program Schedule:
PP26 *https://www.siam.org/conferences-events/siam-conferences/pp26/program/program-and-abstracts/*
IMR26 *https://internationalmeshingroundtable.com/imr34/program/*

The Mobile App and Online Program Schedule contain the most up-to-date information.
A PP26 searchable abstract document is also posted.

SIAM Events Mobile App

www.tripbuildermedia.com/apps/siam

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https://internationalmeshingroundtable.com/imr34/

Tuesday, March 3

11:00 a.m. – 7:30 p.m.
Registration
A22 Foyer

11:00 a.m. – 5:00 p.m.
Exhibits Open
A22 Foyer

1:00 p.m. – 1:15 p.m.
Welcome Remarks
A22 GrHS

1:15 p.m. – 2:55 p.m.
CP1 Proceedings Paper Session 1
A22 GrHS

2:55 p.m. – 3:25 p.m.
Coffee Breaks
A22 and T9 Foyers

3:25 p.m. – 5:05 p.m.
Concurrent Sessions
MS1 LLM Enabling HPC and HPC Enabling LLM - Part I of II
A22 GrHS
MS2 Mixed Precision Algorithms for Fast Numerics on Supercomputers - Part I of III
A22 HSA
MS3 Codesign and Algorithmic Development at the Crossroad of HPC and Large-Scale Simulations - Part I of II
ZIB HS
MS4 Algorithm Configuration and Selection in Parallel Scientific Computing Applications
A22 HSB
MS5 Structure Preservation in Plasma Physics - Part I of II
A6 SR 031
MS6 Emerging Discrete Algorithms on Emerging Architectures - Part I of III
T9 SR 005
MS7 Scalable Statistical Methods for Large-Scale Data Analysis - Part I of II
T9 SR 006
MS8 Recent Advances in Model Reduction and Uncertainty Quantification: From Algorithms to Large-scale Applications and HPC - Part I of III
A6 SR 032
MS9 Asynchronous Bundle and Column Generation Methods
ZIB SR
MS10 Matrix Computations on Emerging Architectures - Part I of II
A6 SR 007/008
CP2 Contributed Lecture Session 1
T9 SR 046
CP3 Contributed Lecture Session 2
T9 SR 055

5:05 p.m. – 5:10 p.m.
Intermission

Tuesday, March 3

5:10 p.m. – 6:50 p.m.
Concurrent Sessions
MS11 LLM Enabling HPC and HPC Enabling LLM - Part II of II
A22 GrHS
MS12 Emerging Discrete Algorithms on Emerging Architectures - Part II of III
A22 HSA
MS13 Codesign and Algorithmic Development at the Crossroad of HPC and Large-Scale Simulations - Part II of II
ZIB HS
MS14 Scalable Numerical Algorithms and Graph Analytics for Large-scale Applications - Part I of III
A22 HSB
MS15 Structure Preservation in Plasma Physics - Part II of II
A6 SR 031
MS16 Algorithms, Software, and Performance Engineering for Extreme Scale Flow Simulations – The StroemungsRaum Project - Part I of II
T9 SR 005
MS17 Scalable Statistical Methods for Large-Scale Data Analysis - Part II of II
T9 SR 006
MS18 Recent Advances in Model Reduction and Uncertainty Quantification: From Algorithms to Large-scale Applications and HPC - Part II of III
A6 SR 032
MS19 Accelerating Science — Porting Real-World Applications to GPUs - Part I of II
ZIB SR
MS20 Matrix Computations on Emerging Architectures - Part II of II
A6 SR 007/008
MS21 Progress and Challenges in Extreme Scale Computing and Big Data
T9 SR 046
MS22 Modernizing the Legacy Weather and Climate Simulation Model ICON
T9 SR 055

6:50 p.m. – 7:30 p.m.
Intermission and Pretzels
A22 Foyer

7:30 p.m. – 8:30 p.m.
IP1 Computational Climate Science (Public Lecture)
Bjorn Stevens, Max Planck Institute for Meteorology, Hamburg, Germany
A22 GrHS

Wednesday, March 4

7:00 a.m. – 7:45 a.m.
Morning Run
Meet in front of the Rathaus Steglitz train station. Wear warm clothes and running shoes for a three-mile run.

Wednesday, March 4

8:00 a.m. – 7:15 p.m.
Registration
A22 Foyer

9:00 a.m. – 5:00 p.m.
Exhibits Open
A22 Foyer

8:25 a.m. – 8:30 a.m.
Remarks
A22 GrHS

8:30 a.m. – 9:15 a.m.
IP2 In Transit Learning at Exascale: A Streaming ML Workflow for Scientific Simulations
Sunita Chandrasekaran, University of Delaware, U.S.
A22 GrHS

9:15 a.m. – 9:20 a.m.
Intermission

9:20 a.m. – 10:05 a.m.
IP3 Multiscale Computing: A Unique Opportunity for Digital Twins?
Dirk Hartmann, Siemens, Germany
A22 GrHS

10:05 a.m. – 10:45 a.m.
Coffee Breaks
A22 and T9 Foyers

10:45 a.m. – 12:25 p.m.
Concurrent Sessions
MS23 Scalable Numerical Algorithms and Graph Analytics for Large-scale Applications - Part II of III
A22 GrHS
MS24 Advanced Scientific Computing Algorithms Using the AMReX Framework - Part I of II
A22 HSA
MS25 Sparse Structured Computations in Science and Engineering - Part I of II
ZIB HS
MS26 Scalable Neural and Hybrid Methods for Solving Complex PDEs - Part I of II
A22 HSB
MS27 Mixed Precision Algorithms: A Rounding Error Analysis Perspective - Part I of II
A6 SR 031
MS28 Algorithms, Software, and Performance Engineering for Extreme Scale Flow Simulations – The StroemungsRaum Project - Part II of II
T9 SR 005
MS29 Accelerating Science — Porting Real-World Applications to GPUs - Part II of II
T9 SR 006
MS30 Recent Advances in Model Reduction and Uncertainty Quantification: From Algorithms to Large-scale Applications and HPC - Part III of III
A6 SR 032
MS31 Codesign in the Era of Exascale and AI - Part I of II
ZIB SR

Wednesday, March 4

MS32 Scalable Optimization for Large-Scale Energy Systems: Advanced Solvers and Algorithms
A6 SR 007/008
CP4 Contributed Lecture Session 3
T9 SR 046

12:25 p.m. – 2:00 p.m.
Lunch Break

2:00 p.m. – 3:40 p.m.
Concurrent Sessions
MS33 Scalable Numerical Algorithms and Graph Analytics for Large-scale Applications - Part III of III
A22 GrHS
MS34 Advanced Scientific Computing Algorithms Using the AMReX Framework - Part II of II
A22 HSA
MS35 Sparse Structured Computations in Science and Engineering - Part II of II
ZIB HS
MS36 Scalable Neural and Hybrid Methods for Solving Complex PDEs - Part II of II
A22 HSB
MS37 Mixed Precision Algorithms: A Rounding Error Analysis Perspective - Part II of II
A6 SR 031
MS38 Hardware-driven Mixed-precision Algorithms, Precision Emulation, and Memory Accessors - Part I of II
T9 SR 005
MS39 Parallel Tensor Computation for Scientific Applications: Algorithms and Implementations - Part I of II
T9 SR 006
MS40 Efficient and Hardware Aware Numerics for the Solution of PDEs
A6 SR 032
MS41 Codesign in the Era of Exascale and AI - Part II of II
ZIB SR
MS42 **CANCELED**Benchmarking for Emerging AI Workloads and Novel AI Accelerators
CP5 Contributed Lecture Session 4
T9 SR 046
CP6 Contributed Lecture Session 5
T9 SR 055

3:40 p.m. – 4:15 p.m.
Coffee Breaks
A22 and T9 Foyers

4:15 p.m. – 5:55 p.m.
CP7 Proceedings Paper Session 2
A22 GrHS

5:55 p.m. – 6:00 p.m.
Intermission

6:00 p.m. – 6:45 p.m.
IP4 Scaling Vascular Digital Twins: From Millions of Heartbeats to Petabytes of Data
Amanda Randles, Duke University, U.S.
A22 GrHS

Wednesday, March 4

6:45 p.m. – 7:00 p.m.
Intermission

7:00 p.m. – 9:00 p.m.
PP1 PP26/IMR26 Poster Session and Reception
A22 Foyer

Thursday, March 5

7:00 a.m. – 7:45 a.m.
Morning Run
Meet in front of the Rathaus Steglitz train station. Wear warm clothes and running shoes for a three-mile run.

8:00 a.m. – 4:30 p.m.
Registration
A22 Foyer

8:25 a.m. – 8:30 a.m.
Remarks
A22 GrHS

8:30 a.m. – 9:15 a.m.
IP5 Parallelism in Sparse and Data-Sparse Direct Solvers
Sherry Li, Lawrence Berkeley National Laboratory, U.S.
A22 GrHS

9:00 a.m. – 5:00 p.m.
Exhibits Open
A22 Foyer

9:15 a.m. – 9:20 a.m.
Intermission

9:20 a.m. – 9:50 a.m.
SP1 2026 SIAM Activity Group on Supercomputing Early Career Prize Lecture - Making Waves in the Cloud: A Paradigm Shift for Scientific Computing through Compiler Technology
William S. Moses, University of Illinois Urbana-Champaign, U.S.
A22 GrHS

9:50 a.m. – 10:20 a.m.
Ph.D. Science Slam
A22 GrHS

10:20 a.m. – 10:45 a.m.
Coffee Breaks
A22 and T9 Foyers

10:45 a.m. – 12:25 p.m.
Concurrent Sessions
MS43 Massively Parallel Algorithms for Forward and Inverse Problems - Part I of II
A22 GrHS

Thursday, March 5

MS44 Matrix Multiplier, a Hardware Kernel of the 2020s: Numerical Features, Error Analysis & Standardisation
A22 HSA
MS45 Hardware-driven Mixed-precision Algorithms, Precision Emulation, and Memory Accessors - Part II of II
ZIB HS
MS46 Low-rank Approximation with Applications to Hierarchical Matrices and Tensors - Part I of III
A22 HSB
MS47 Parallel Methods for Time-dependent Problems: Theory and Applications - Part I of III
A6 SR 031
MS48 Integrating AI Models in High-performance Computing Workflows - Part I of II
T9 SR 005
MS49 Parallel Tensor Computation for Scientific Applications: Algorithms and Implementations - Part II of II
T9 SR 006
MS50 Scalable Multilevel Solvers and Applications - Part I of II
A6 SR 032
MS51 GPU Methods for Large-Scale Optimization and Control
ZIB SR
MS52 Emerging Discrete Algorithms on Emerging Architectures - Part III of III
A6 SR 007/008
MS53 High-performance Iterative Solution Strategies for Large-scale Coupled Problems - Part I of II
T9 SR 046
CP8 Contributed Lecture Session 6
T9 SR 055

12:25 p.m. – 2:00 p.m.
Lunch Break

2:00 p.m. – 3:40 p.m.
Concurrent Sessions
MS54 Matrix Computations and Scientific Applications - Part I of II
A22 GrHS
MS55 High-performance Iterative Solution Strategies for Large-scale Coupled Problems - Part II of II
A22 HSA
MS56 Architecture-Aware Parallel Solvers for Large-Scale Complex Problems - Part I of III
ZIB HS
MS57 High Performance Solvers for Finite Elements - Part I of II
A22 HSB
MS58 Parallel Methods for Time-dependent Problems: Theory and Applications - Part II of III
A6 SR 031
MS59 Integrating AI Models in High-performance Computing Workflows - Part II of II
T9 SR 005
MS60 Low-rank Approximation with Applications to Hierarchical Matrices and Tensors - Part II of III
T9 SR 006

Thursday, March 5

MS61 Scalable Multilevel Solvers and Applications - Part II of II
A6 SR 032
MS62 Mixed Precision Algorithms for Fast Numerics on Supercomputers - Part II of III
ZIB SR
MS63 Hybrid Intelligence: Merging Optimization and ML for Complex Systems
A6 SR 007/008
CP9 Contributed Lecture Session 7
T9 SR 046
CP10 Contributed Lecture Session 8
T9 SR 055

3:40 p.m. – 4:15 p.m.
Coffee Breaks
A22 and T9 Foyers

4:15 p.m. – 5:00 p.m.
IP6 Extreme Computing Universals
David E. Keyes, King Abdullah University of Science and Technology (KAUST), Saudi Arabia
A22 GrHS

5:00 p.m. – 5:45 p.m.
SIAG/SC Business Meeting
Complimentary beer and wine will be served.
A22 GrHS

Friday, March 6

7:00 a.m. – 7:45 a.m.
Morning Run
Meet in front of the Rathaus Steglitz train station. Wear warm clothes and running shoes for a three-mile run.

8:00 a.m. – 3:45 p.m.
Registration
A22 Foyer

8:25 a.m. – 8:30 a.m.
Remarks
A22 GrHS

8:30 a.m. – 9:15 a.m.
IP7 AI's Hardware Revolution and the Scientific Computing Opportunity
Michael James, Cerebras, U.S.
A22 GrHS

9:00 a.m. – 12:00 p.m.
Exhibits Open
A22 Foyer

9:15 a.m. – 10:00 a.m.
Coffee Breaks
A22 and T9 Foyers

Friday, March 6

10:00 a.m. – 11:40 a.m.
Concurrent Sessions
MS64 Matrix Computations and Scientific Applications - Part II of II
A22 GrHS
MS65 Mixed Precision Algorithms for Fast Numerics on Supercomputers - Part III of III
A22 HSA
MS66 Architecture-Aware Parallel Solvers for Large-Scale Complex Problems - Part II of III
ZIB HS
MS67 High Performance Solvers for Finite Elements - Part II of II
A22 HSB
MS68 Parallel Methods for Time-dependent Problems: Theory and Applications - Part III of III
A6 SR 031
MS69 Towards Massively Parallel Sparse Direct Solvers on GPU Platforms
T9 SR 005
MS70 Julia for High Performance Computing - Part I of II
T9 SR 006
MS71 Multi-Agent System for High-Performance Computing
A6 SR 032
MS72 **CANCELED** Designing Parallel Communication Strategies for Scientific Workloads in the Age of AI
MS73 Next Generation FFT Algorithms in Theory and Practice: Parallel Implementations and Applications
A6 SR 007/008
CP11 Contributed Lecture Session 9
T9 SR 046
CP12 Contributed Lecture Session 10
T9 SR 055

11:40 a.m. – 1:15 p.m.
Lunch Break

1:15 p.m. – 2:55 p.m.
Concurrent Sessions
MS74 Machine Learning-Based Surrogate Models for Molecular Dynamics Simulations
A22 GrHS
MS75 Advances in Parallel Techniques for Mixed-Integer Programming
A22 HSA
MS76 Architecture-Aware Parallel Solvers for Large-Scale Complex Problems - Part III of III
ZIB HS
MS77 Scalable Subspace Solvers for Problems with Inequality Constraints
A22 HSB
MS78 Massively Parallel Algorithms for Forward and Inverse Problems - Part II of II
A6 SR 031
MS79 Quantum-Inspired Tensor Methods: Advances and Opportunities
T9 SR 005
MS80 Julia for High Performance Computing - Part II of II
T9 SR 006

Friday, March 6

MS81 Low-rank Approximation with Applications to Hierarchical Matrices and Tensors - Part III of III
A6 SR 032
MS82 High-performance Randomized Numerical Linear Algebra
ZIB SR
CP13 Contributed Lecture Session 11
A6 SR 007/008
CP14 Contributed Lecture Session 12
T9 SR 046

2:55 p.m. – 3:30 p.m.
Coffee Breaks
A22 and T9 Foyers

3:30 p.m. – 4:15 p.m.
IP8 Brain-Inspired Computing: Opportunities for Neuromorphic Systems in the Future of Computing (Public Lecture)
Catherine Schuman, University of Tennessee, U.S.
A22 GrHS

4:15 p.m. – 4:30 p.m.
Closing Remarks
A22 GrHS

Abbreviation Key
CP = Contributed Presentation Session
IP = Invited Plenary Speaker
MS = Minisymposium
PP = Poster Session
SP = Special Lecture

FUNDING AGENCY
SIAM and the Organizing Committee wish to extend their thanks and appreciation to the U.S. National Science Foundation for their support of this conference.

Tuesday, March 3

8:45 a.m. – 9:00 a.m.
Opening Remarks
T9 Large Lecture Hall

9:00 a.m. – 11:00 a.m.
Short Course 1: Mesh Intersection: Down the Rabbit Hole
Dr. Bruno Levy, Inria Saclay, Orsay Mathematics Laboratory, France
T9 Large Lecture Hall

11:00 a.m. – 12:45 a.m.
Lunch Break

12:45 p.m.– 2:45 p.m.
Short Course 2: Towards Higher-Order Simplicial Mesh Generation with Guarantees
Prof. Marcel Campen, Paderborn University, Germany
T9 Large Lecture Hall

2:45 p.m. – 3:30 p.m.
Coffee Break
T9 Foyer

3:30 p.m. – 5:30 p.m.
Short Course 3: Interval-Based Continuous Collision Detection
Prof. Teseo Schneider, University of Victoria, Canada
T9 Large Lecture Hall

Wednesday, March 4

7:00 a.m. – 7:30 a.m.
Morning Run (by PP26)

8:00 a.m. – 8:15 a.m.
Welcome Remarks
T9 Large Lecture Hall

8:15 a.m. – 9:00 a.m.
Concurrent Sessions
Research notes 1a
T9 Large Lecture Hall
Research notes 1b
T9 SR049

9:00 a.m. – 9:10 a.m.
Intermission

9:15 a.m. – 10:10 a.m.
Concurrent Sessions
Research Notes 2a
T9 Large Lecture Hall
Research Notes 2b
T9 SR049

10:10 a.m. – 10:45 a.m.
Coffee Break
T9 Foyer

10:45 a.m. – 12:00 p.m.
Concurrent Sessions
Technical Papers 1a
T9 Large Lecture Hall
Technical Papers 1b
T9 SR049

12:00 p.m. – 1:30 p.m.
Lunch Break

1:30 p.m. – 2:30 p.m.
Plenary Lecture: Explainable Geometric Algorithms
Alla Sheffer, University of British Columbia, Canada
T9 Large Lecture Hall

2:30 p.m. – 3:45 p.m.
Concurrent Sessions
Technical Papers 2a
T9 Large Lecture Hall
Technical Papers 2b
T9 SR049

3:45 p.m. – 4:15 p.m.
Coffee Break
T9 Foyer

4:15 p.m. – 5:15 p.m.
Panel Discussion: Parallel Meshing
T9 Large Lecture Hall

5:15 p.m. – 5:30 p.m.
Lightning Poster Previews
T9 Large Lecture Hall

7:00 p.m. – 9:00 p.m.
Poster Session and Reception
A22 Foyer

Thursday, March 5

7:00 a.m. – 7:30 a.m.
Morning Run (by PP26)

8:00 a.m. – 9:00 a.m.
Concurrent Sessions
Research Notes 3a
T9 Large Lecture Hall
Research Notes 3b
T9 SR049

9:00 a.m. – 9:05 a.m.
Intermission

9:05 a.m. – 10:20 a.m.
Concurrent Sessions
Technical Papers 3a
T9 Large Lecture Hall
Technical Papers 3b
T9 SR049

10:20 a.m. – 10:45 a.m.
Coffee Break
T9 Foyer

10:45 a.m. – 12:00 p.m.
Concurrent Sessions
Technical Papers 4a
T9 Large Lecture Hall
Technical Papers 4b
T9 SR049

12:00 p.m. – 1:30 p.m.
Lunch Break

1:30 p.m. – 2:30 p.m.
Plenary Lecture: Design and Optimization of Meshes in Architecture
Helmut Pottmann, TU Vienna, Austria
T9 Large Lecture Hall

2:30 p.m. – 3:45 p.m.
Round Robin or Birds of a Feather
T9 Large Lecture Hall & SR049

3:45 p.m. – 4:15 p.m.
Coffee Break
T9 Foyer

4:15 p.m. – 6:00 p.m.
Break and Travel to IMR Banquet Location

6:00 p.m. – 9:30 p.m.
IMR Banquet (Optional event. Ticket purchase required.)
RIVO Spreeterrassen

Friday, March 6

7:00 a.m. – 7:30 a.m.
Morning Run (by PP26)

8:15 a.m. – 9:15 a.m.
Plenary Lecture: Metric-based Anisotropic Mesh Adaptation: The New Age of Meshing in Computational Fluid Dynamics
Frederic Alauzet, Inria Saclay, France
T9 Large Lecture Hall

9:15 a.m. – 10:00 a.m.
Coffee Break
T9 Foyer

10:00 a.m. – 11:00 a.m.
Panel Discussion:
Anisotropic Meshing
T9 Large Lecture Hall

11:00 am – 11:45 am
Prizes and Closing
T9 Large Lecture Hall

Thank you to our PP26 sponsors!

SIAM Conference on Parallel Processing for Scientific Computing (PP26)

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SIAM International Meshing Roundtable Workshop 2026 (IMR26)

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Visit the Exhibitors!

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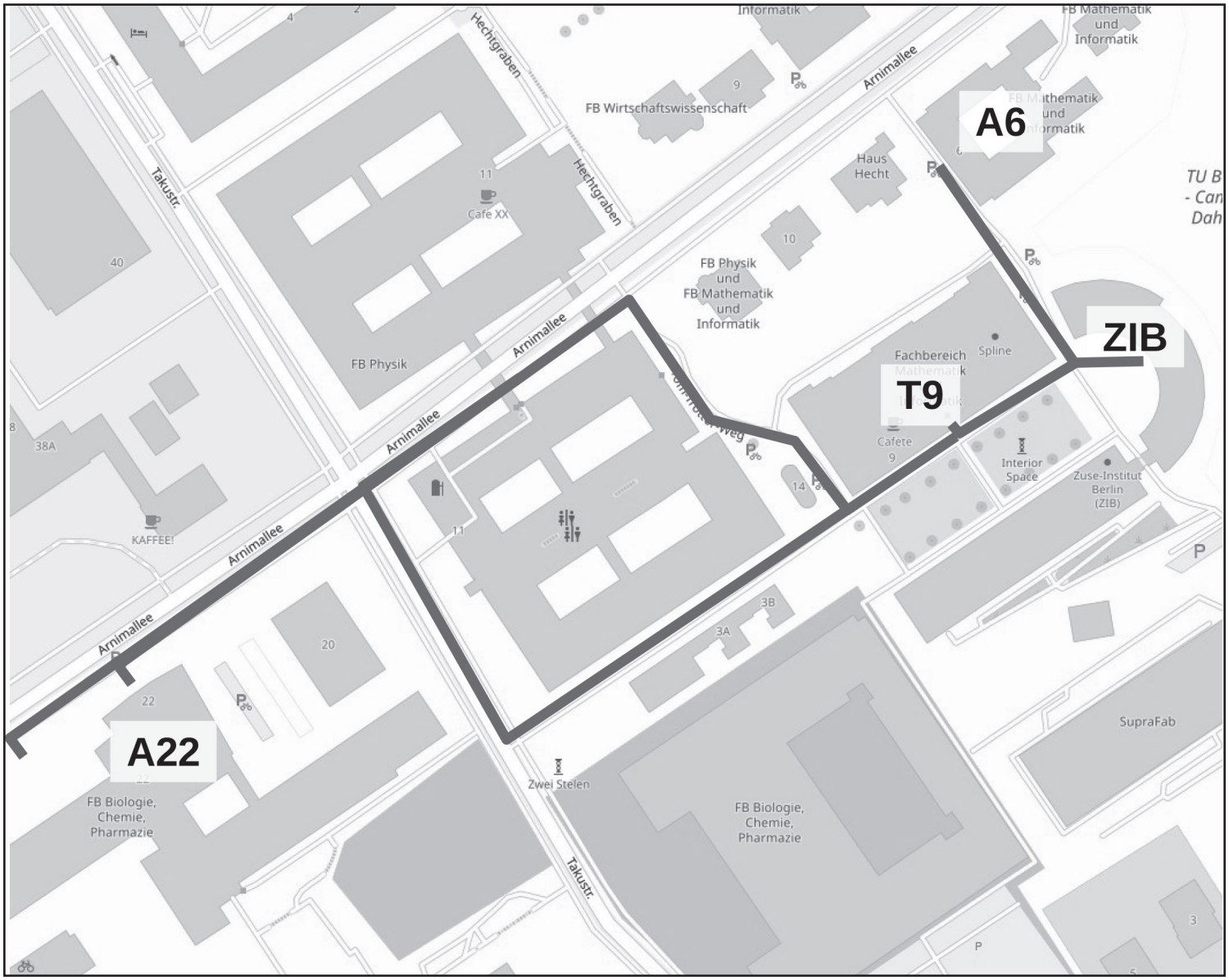
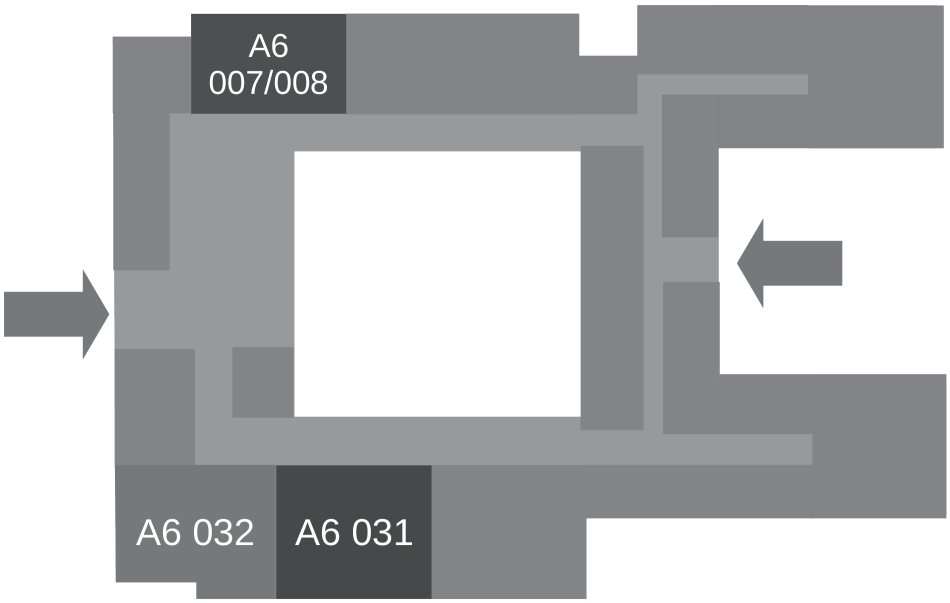
Zuse Institute Berlin and Free University of Berlin Campus Map and Building Floorplans

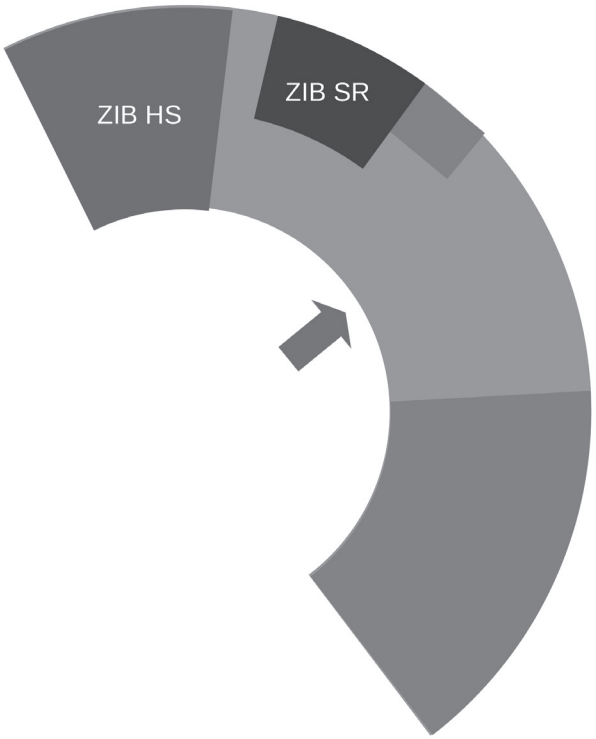




Arnimalle 6 (A6)

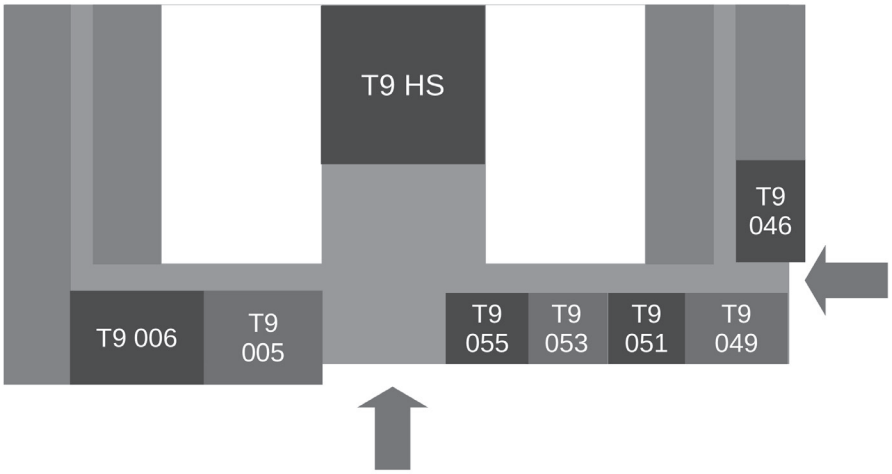
(Floorplans continue on following page)

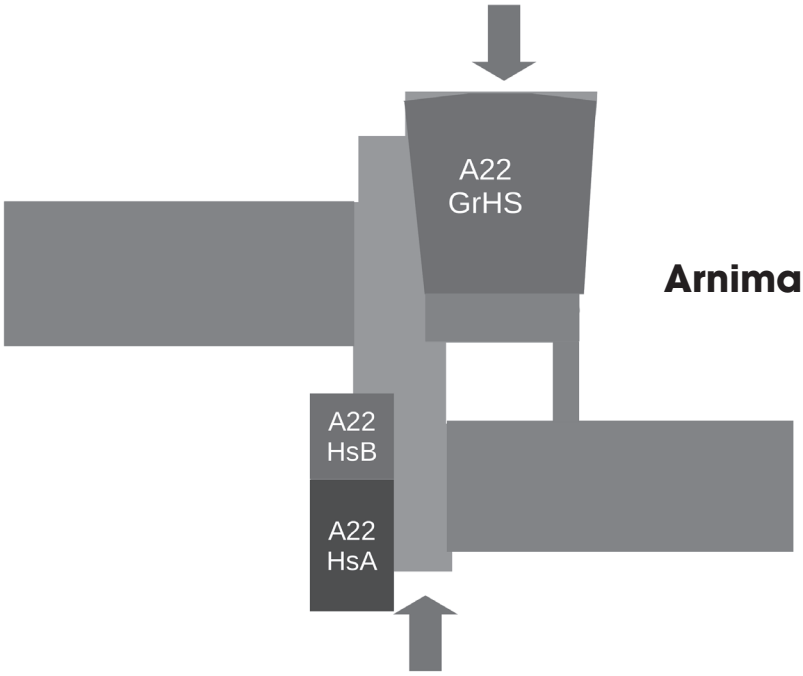
Zuse Institute Berlin and Free University of Berlin Campus Map and Building Floorplans



ZIB Takustr 7 (ZIB)

Takustr 7(T9)





Arnimalle 22 (A22)