

WIEBKE KOEPP

Research Scientist · Advanced Light Source

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CURRICULUM VITAE

WORK EXPERIENCE

- 2025–present **Computational Research Scientist, Career** · *Lawrence Berkeley National Laboratory (LBNL)*
Program lead for the [workflows and visualization](#) team at the [Advanced Light Source \(ALS\)](#), conducting computational research supporting experimental design, data management, analysis, and visualization and collaborating scientific user facilities.
Developing tools to enable autonomous and real-time decision-making during experiments.
- 2023–2025 **Computational Research Scientist, Career-Track** · *Lawrence Berkeley National Laboratory (LBNL)*
Leading computational research supporting experimental design, data management, analysis, and visualization at the [Advanced Light Source \(ALS\)](#) and collaborating scientific user facilities.
Developing tools to enable autonomous and real-time decision-making during experiments.
- 2017–2022 **Research and Teaching Assistant** · *Royal Institute of Technology (KTH)*
Researching visualization of dynamic hierarchies for features within scalar fields or other quantitative hierarchical data with a focus on data from large-scale computational fluid dynamics simulations
Teaching graduate courses in visualization, computer graphics and machine learning
- 2016 **Research and Teaching Assistant** · *Technische Universität München (TUM)*
Researching novel adaptive transfer functions for use in artificial neural networks
Responsible for the topics decision trees, k -nearest neighbors and Gaussian processes in the introductory graduate machine learning course
- 2011–2015 **Teaching Assistant** · *TUM*
Teaching undergraduate courses in math and computer science in exercise groups of 20–30 students and grading of homework and exams

EDUCATION

- 2017–2022 **Ph.D. High Performance Computing and Visualization** · *KTH*
Thesis: Static Visualizations for Dynamic Hierarchies [ pdf]
Advisor: Prof. Dr. Tino Weinkauff
- 2013–2016 **M.Sc. in Eng. Computer Science and Engineering** · *KTH*
Thesis: A Novel Transfer Function for Continuous Interpolation between Summation and Multiplication in Neural Networks [ pdf], jointly supervised in a double degree, see below
Examiner: Prof. Dr. Anders Lansner · Supervisor: Prof. Dr. Erik Fransén
- 2012–2015 **M.Sc. Informatics** · *TUM*
Thesis: A Novel Transfer Function for Continuous Interpolation between Summation and Multiplication in Neural Networks [ pdf]
Supervisor: Prof. Dr. Patrick van der Smagt · Advisor: Dr. Sebastian Urban
Interdisciplinary Project in the minor subject Mathematics: Random Generation of Tangrams [ pdf]
Supervisor: Prof. Dr. Dr. Jürgen Richter-Gebert · Advisor: Dipl.-Inf. Martin von Gagern
- 2009–2012 **B.Sc. Informatics** · *TUM*
Thesis: Representation of General Geometric Forms for Humanlike Problem Solving [ pdf]
Supervisor: Dr. Alexandra Kirsch

SKILLS AND FREQUENTLY USED TOOLS

Specialties

Scientific Visualization · Topological Data Analysis · Machine Learning

Programming

PYTHON · C++ · Bash · JAVASCRIPT

Visualization and Topology

Dash Plotly · Inviwo · ParaView · Topology Toolkit TTK · Matplotlib · scikit-tda

Data Analysis and Machine Learning

NumPy · Pandas · SciPy · scikit-learn · Gaussian Processes · DSLIA · PyTorch

Software Development Tools and Resource Management

Git · GitHub Actions · VS Code · SLURM · Jupyter · Prefect · Docker

Communication and Presentation

L^AT_EX · Slideshows with PowerPoint, Google Slides and Keynote · Sound Editing with Audacity · Video Editing with iMovie, Camtasia and ScreenFlow

Data Acquisition

Small- and Wide-Angle Scattering in Transmission and Grazing Incidence Geometry (SAXS/WAXS/GiSAXS/GiWAXS) · Micro-Computed-Tomography (MicroCT) · Atomic-Force Microscopy (AFM) · Computational Fluid Dynamics Simulations from Nek5000 and ECEarth

HONORS AND AWARDS

2026 LBNL [Director's Achievement Award](#), Scientific

with Real-Time Synchrotron Imaging Analysis Team (David Abramov, Wahid Bhimji, Elizabeth Clark, Xiaoya Chong, Tanny Chavez Esparza, Alexander Hexemer, Wiebke Koepp, Dylan McReynolds, Shashank Subramanian, Peter Zwart) for *foundational work building the ALS imaging superfacility, culminating in the delivery of real-time, AI-driven analysis of microtomography experiments leveraging DOE's high-performance networks and computing infrastructure.*

2026, 2024 ALS Spot Awards

with members of ALS Computing, LBL Communications, and ALS Tomography groups for *ModCon March Demo Team and for creating compelling videos highlighting the accomplishments of the SYNAPS-I project in 2026*

with members of the ALS Computing group for *deploying a graphical user interface driven machine learning framework to segment tomography data across facilities in 2024*

2026, 2024 Special Recognitions for Outstanding Reviews at [TopoInVis Connect 2026](#), [TopoInVis 2024](#) and [PacificVis 2024](#)

Full paper submission for the 2026 Workshop on Topology meets Artificial Intelligence
Full paper submission for the 2024 Workshop on Topological Data Analysis and Visualization
Full paper journal track submission to the 2024 IEEE Pacific Visualization Conference

2021 Best Visualization Showcase Award at [PEARC 2021](#)

with Marco Atzori, Mohamad Rezaei, Niclas Jansson, Ricardo Vinuesa, Erwin Laure, Philipp Schlatter, and Tino Weinkauff for *Effects of Blowing and Suction on the Turbulent Flow Around an Airfoil*

2019 Best Paper Honorable Mention Award at [LDAV 2019](#)

with Anke Friederici, Marco Atzori, Ricardo Vinuesa, Philipp Schlatter, and Tino Weinkauff for *Distributed Percolation Analysis for Turbulent Flows*

2011–2015 Recipient of the [Deutschlandstipendium](#) (eng. Germany Scholarship)

Awarded a merit-based scholarship by the German government, recognizing outstanding academic performance, social engagement, and personal achievements.

- 2011–2015 Member of the [TUM Junge Akademie](#) (eng. TUM Young Academy)
Selected to join the Technical University of Munich's interdisciplinary honors program for exceptionally talented and dedicated students
- 2011–2015 Member of [Best.in.tum](#)
Selected as part of the top 2% of undergraduate students in the Department of Informatics, Technical University of Munich, based on academic performance by the end of the third term.

PEER-REVIEWED PROJECTS

- September 2026 Orchestrating agentic systems at ALS beamline 5.3.1 with Osprey and Bluesky
Ka Hung Chan, Yang Ha, Antoine Islegen-Wojdyla, Seij De Leon, Manuel Garces, Dylan McReynolds, Xiaoya Chong, Raja Vyshnavi Sriramoju, Johannes Mahl, Damian Guenzing, **Wiebke Koepp**, Alexander Hexemer, Thorsten Hellert, and Tanny Chavez, *Journal of Synchrotron Radiation* 33.5 (2026). [[doi 10.1107/S1600577526007836](#), [code](#)]
- March 2026 Toward Unified Autonomous Scattering Experiments with a Cross-Facility Case Study at ALS and PETRA III
Wiebke Koepp, Benedikt Sochor, Dylan McReynolds, Tanny Chavez, Marcus Michael Noack, Raja Vyshnavi Sriramoju, Aidan Coffey, Yunfei Wang, Enno Henn, Anna Katharina Sambale, Eric Euchler, Damon English, Frank Schlünzen, Eric Schaible, Chenhui Zhu, Sarathlal Koyiloth Vayalil, Stephan Volker Roth, and Alexander Hexemer, *Photon Science* (2026). [[doi 10.1021/photonsci.5c00044](#), [code](#), [dataset](#)]
- November 2025 Accelerating Advanced Light Source Science Through Multi-Facility HPC Workflows
David Abramov, Samuel Welborn, Ryan Chard, Kuldeep Chawla, Xiaoya Chong, Elizabeth Clark, Bjoern Enders, Alexander Hexemer, Jason Jed, **Wiebke Koepp**, Harinarayan Krishnan, Seij De Leon, Dilworth Parkinson, David Perlmutter, Raja Vyshnavi Sriramoju, Thomas Uram, Lee Lisheng Yang, and Dylan McReynolds, *SC Workshops '25: Proceedings of the SC '25 Workshops*, pp. 2328–2335. [[doi 10.1145/3731599.3767590](#), [code](#)]
- August 2025 High Throughput Robotic GIWAXS at ALS SAXS/WAXS beamline
Eric Schaible, Ivan Galikeev, Matthew Roizin-Prior, Garret Birkel, Yunfei Wang, **Wiebke Koepp**, Raja Vyshnavi Sriramoju, Harold Barnard, Chinweike Osubor, Camille Molsick-Gibson, Piotr Gach, Sujoy Roy, Xiaodan Gu, Dylan McReynolds, Alexander Hexemer, Lucas Kistulentz, Damon English, Dilworth Y. Parkinson, and Chenhui Zhu, *Photon Science* 1 (1) (2025): : pp. 35–44. [[doi 10.1021/photonsci.5c00017](#)]
- June 2025 Optimizing Multi-GPU Inference of High-Resolution Segmentation in MLExchange
Shizhao Lu, Tanny Chavez, **Wiebke Koepp**, Guanhua Hao, Petrus H. Zwart, and Alexander Hexemer, *Journal of Supercomputing* 81.9 (2025): 1058. [[doi 10.1007/s11227-025-07413-5](#), [code](#)]
- May 2025 A Machine Learning-Driven Data Labeling Pipeline for Scientific Analysis in MLExchange
Tanny Chavez, Zhuowen Zhao, Runbo Jiang, **Wiebke Koepp**, Dylan McReynolds, Petrus H. Zwart, Daniel B. Allan, Eliot H. Gann, Nicholas Schwarz, Daniela Ushizima, Edward S. Barnard, Apurva Mehta, Subramanian Sankaranarayanan, and Alexander Hexemer, *Journal of Applied Crystallography* 58.3 (2025): pp. 731–745. [[doi 10.1107/S1600576725002328](#), [code](#)]
- January 2023 Temporal Merge Tree Maps: A Topology-Based Static Visualization for Temporal Scalar Data
Wiebke Köpp and Tino Weinkauff, *IEEE Transactions on Visualization and Computer Graphics* 29.1 (2022): Proceedings IEEE VIS, pp. 1157–1167. [[doi 10.1109/TVCG.2022.3209387](#), [presentation](#), [project website](#), [code](#)]
- January 2022 In-situ visualization of large-scale turbulence simulations in Nek5000 with ParaView Catalyst

Marco Atzori, **Wiebke Köpp**, Steven W. D. Chien, Daniele Massaro, Fermín Mallor, Adam Peplinski, Mohamad Rezaei, Niclas Jansson, Stefano Markidis, Ricardo Vinuesa, Erwin Laure, Philipp Schlatter, and Tino Weinkauff, *Journal of Supercomputing* 78.3 (Feb. 2022), pp. 3605–3620. [[doi 10.1007/s11227-021-03990-3](https://doi.org/10.1007/s11227-021-03990-3), [code](#)]

September 2021

Notes on Percolation Analysis of Sampled Scalar Fields

Wiebke Köpp*, Anke Friederici*, Marco Atzori, Ricardo Vinuesa, Philipp Schlatter, and Tino Weinkauff, *Topological Methods in Data Analysis and Visualization VI*. pp. 39–54, *presented at the workshop on Topology-Based Methods in Visualization (TopoInVis) 2019, Nyköping, Sweden* [[doi 10.1007/978-3-030-83500-2_3](https://doi.org/10.1007/978-3-030-83500-2_3), [project website](#), [code](#)]

October 2019

Distributed Percolation Analysis for Turbulent Flows

Anke Friederici*, **Wiebke Köpp***, Marco Atzori, Ricardo Vinuesa, Philipp Schlatter, and Tino Weinkauff, *9th IEEE Symposium on Large Data Analysis and Visualization (LDAV) 2019*. Vancouver, Canada. [[doi 10.1109/LDAV48142.2019.8944383](https://doi.org/10.1109/LDAV48142.2019.8944383), [project website](#), [code](#)]

January 2019

Temporal Treemaps: Static Visualization of Evolving Trees

Wiebke Köpp and Tino Weinkauff, *IEEE Transactions on Visualization and Computer Graphics* 25.1 (2019): Proceedings IEEE VIS, pp. 534–543. [[doi 10.1109/TVCG.2018.2865265](https://doi.org/10.1109/TVCG.2018.2865265), [project website](#), [code](#)]

April 2016

A Differentiable Transition Between Additive and Multiplicative Neurons

Wiebke Köpp, Patrick van der Smagt and Sebastian Urban, *International Conference on Learning Representations (ICLR) 2016 Workshop Track*. San Juan, Puerto Rico, [ArXiv: 1604.03736](https://arxiv.org/abs/1604.03736) [[cs.LG](#)]

*Both authors contributed equally

PUBLIC SCIENCE COMMUNICATION

June 2024

ALS Computing Group Brings Machine Learning Models to Beamtimes around the World

Contributions to review and editing of an [ALS News Feature](#), part of ALSNews Vol. 460, describing work with Dula Parkinson, Alexander Hexemer, Dylan McReynolds, Sharif Ahmed, Peter Zwart, Tanny Chavez, Tibbers Hao, Raja Vyshnavi Sriramoju, Xiaoya Chong, Tim Snow, Jacob Filik, Seij De Leon (ordered according to appearance in the article)

November 2020

Effects of Blowing and Suction on the Turbulent Flow around an Airfoil

Wiebke Köpp, Marco Atzori, Mohamad Rezaei, Niclas Jansson, Ricardo Vinuesa, Erwin Laure, Philipp Schlatter, and Tino Weinkauff, *73rd Annual Meeting of the APS Division of Fluid Dynamics. Gallery of Fluid Motion 2020 and in adapted form at ACM Practice & Experience in Advanced Research Computing (PEARC) 2021*. [[doi 10.1103/APS.DFD.2020.GFM.V0058](https://doi.org/10.1103/APS.DFD.2020.GFM.V0058)]

PRESENTATIONS AT CONFERENCES AND SEMINARS

Presentations at internal division seminars and ALS user meetings are omitted.

September 2026

ALS Photon Science Computing Efforts for Autonomous and Self-Driving Labs

Advanced Light Source Workshop on [Robotics, Automation, and Self-Driving Labs](#)

August 2026

ML, AI & Autonomous and the 10k Samples Project

Group Seminar at the Schreiber Group (Physics of molecular and biological matter) at the University of Tübingen

April 2025

Driving Autonomous Experiments with Machine Learning-Based Workflows

Invited Talk at [MLXN 2025](#): Machine Learning for X-ray and Neutron Science, Virtual

April 2025

Bridging Experiment and Analysis: Machine Learning Tools for Real-Time Labeling, Exploration, and Cross-Facility Learning

Invited Demo/Tutorial with Tanny Chavez at [MLXN 2025](#): Machine Learning for X-ray and Neutron Science, Virtual

January 2025	Towards Closing the Autonomous Loop at Multiple Facilities Invited Talk at the DESY Photon Science Users' Meeting 2025, SAXS/WAXS/GISAXS @ DESY Satellite Workshop, Hamburg, Germany
November 2024	Databases for Small-Angle Scattering Data Topical presentation to seed discussion at the canSAS-2024 Workshop (canSAS-XIV, collective action for nomadic Small Angle Scatterers), co-located with SAS 2024, Taipei, Taiwan
November 2024	Towards Closing the Autonomous Loop at Multiple Facilities: Developing Web-based User Interfaces and Data Infrastructure for Autonomous Experiments and Automated Data Reduction Workflows Wiebke Koepp, Benedikt Sochor, Tanny Chavez, Runbo Jiang, Dylan McReynolds, Marcus Noack, Raja Vyshnavi Sriramoju, Aidan Coffey, Ronald Pandolfi, Eric Schaible, Chenhui Zhu, Frank Schlünzen, Sarathlal Koyiloth Vayalil, Stephan Roth, and Alexander Hexemer, Contributed talk at the XIX International Small Angle Scattering Conference (SAS 2024), Taipei, Taiwan
September 2024	Web-based User Interfaces and Data Infrastructure for Autonomous Experiments and Machine Learning Workflows BlueSky Community Call, Virtual [▶ presentation (passcode available in linked speaker series )]
August 2024	Real-Time Analysis during Beamtime Joint invited talk with Sharif Ahmed, Advanced Light Source (ALS) User Meeting 2024, Microtomography Data Processing Tutorial, Berkeley, USA
July 2024	Developing Web-based User Interfaces and Data Infrastructure for Automated Data Analysis and Autonomous Experiments Division Research Seminar, Materials Sciences Division (MSD), SLAC National Accelerator Laboratory, Stanford, USA
April 2024	Towards Closing the Autonomous Loop at Multiple Facilities: Developing Web-based User Interfaces and Data Infrastructure for Autonomous Experiments and Machine Learning Workflows Wiebke Koepp, Benedikt Sochor, Dylan McReynolds, Marcus Noack, Tanny Chavez Esparza, Raja Vyshnavi Sriramoju, Aidan Coffey, Ronald Pandolfi, Eric Schaible, Chenhui Zhu, Sarathlal Koyiloth Vayalil, Stephan Roth, and Alexander Hexemer, Contributed talk at ML Conference for X-Ray and Neutron-Based Experiments, Heinz Maier-Leibnitz Zentrum (MLZ), Munich, Germany
March 2024	ALS Computing Infrastructure: from Acquisition to Data Management Joint talk with Dylan McReynolds, given at two occasions: Division Seminar, Research Software Engineering, The Rosalind Franklin Institute, Harwell Campus, Didcot, UK, and Division Seminar, Division 6.5 Synthesis and Scattering of Nanostructured Materials, BAM Federal Institute for Materials Research and Testing, Berlin, Germany
September 2023	Introduction to Machine Learning Introductory talk at the Advanced Light Source (ALS) User Meeting 2024, Hands-On Machine Learning in Python Tutorial (co-organized with Tanny Chavez, Tibbers Hao, Alexander Hexemer, Dylan McReynolds, Eric Roberts, Zhuowen Zhao, and Petrus Zwart), Berkeley, USA
October 2023	Cross-Facility Workflow Development for Live Analysis and Visualization on the Web Wiebke Koepp, Benedikt Sochor, Dylan McReynolds, Tanny Chavez, Aidan Coffey, Eric Schaible, Chenhui Zhu, Sarathlal Koyiloth Vayalil, Stephan Roth, and Alexander Hexemer, Contributed talk at canSAS-2023 Workshop (canSAS-XIII, collective action for nomadic Small Angle Scatterers), Institut Laue Langevin (ILL) and European Synchrotron Radiation Facility (ESRF), Grenoble, France
April 2023	Machine Learning: History, Now and Future Introductory talk at the Machine Learning for X-Ray and Neutron Scattering Workshop, Advanced Light Source, Berkeley, USA
October 2022	Temporal Merge Tree Maps: A Topology-Based Static Visualization for Temporal Scalar Data

Wiebke Köpp, Tino Weinkauff, Contributed talk at 2022 IEEE Visualization Conference ([VIS](#)), Oklahoma City, USA [[presentation](#), [preview](#)]

- June 2022* **Change at a glance: Visualizing temporal data in one picture**
Invited talk at the 2022 Summer Event, School of Electrical Engineering and Computer Science, KTH Royal Institute of Technology, Stockholm, Sweden
- June 2019* **Notes on Percolation Analysis of Sampled Scalar Fields**
Wiebke Köpp, Anke Friederici, Marco Atzori, Ricardo Vinuesa, Philipp Schlatter, and Tino Weinkauff, Contributed talk at the Topological Methods in Visualization ([TopoInVis](#)) Workshop, Norrköping, Sweden
- July 2021* **Effects of Blowing and Suction on the Turbulent Flow around an Airfoil**
Wiebke Köpp, Marco Atzori, Mohamad Rezaei, Niclas Jansson, Ricardo Vinuesa, Erwin Laure, Philipp Schlatter and Tino Weinkauff, Contributed talk at the visualization showcase of the Practice & Experience in Advanced Research Computing ([PEARC](#)) Conference, Virtual
- October 2018* **Temporal Treemaps: Static Visualization of Evolving Trees**
Wiebke Köpp and Tino Weinkauff, Contributed talk at IEEE Visualization Conference ([VIS](#)), Berlin, Germany [[preview](#)]
- August 2017* **Making the Invisible Visible**
Invited talk at the 2017 Research Highlights School Day, School of Computer Science and Communication, KTH Royal Institute of Technology, Stockholm, Sweden
- August 2017* **Inviwo Showcase: Tracking Features with Spatio-Temporal Similarity**
Contributed talk at the Swedish e-Science Research Centre (SeRC) Summer School on Visualization, Linköping University, Sweden
- December 2016* **A Novel Transfer Function for Continuous Interpolation between Summation and Multiplication in Neural Networks**
Poster presentation at the 2016 Women in Machine Learning ([WiML](#)) Workshop, co-located with the Conference on Neural Information Processing Systems (NeurIPS), Barcelona, Spain

TEACHING

- Lecture* Visualization (Guest Lecture) · Autumn 19 · KTH
Machine Learning I (3 Lectures) · Winter 16/17 · TUM · [[lecture video sample](#)]
- Teaching Assistant Management* Visualization · Autumn 20–21 · KTH
Introduction to Visualization and Graphics · Spring 20–21 · KTH
- Tutorial* Visualization · Autumn 17–21 · KTH
Introduction to Visualization and Graphics · Spring 17–21 · KTH
Artificial Neural Networks · Spring 17–20, Autumn 18–19 · KTH
Computer Graphics and Interaction · Spring 17–19 · KTH
Information Visualization · Spring 18 · KTH
Discrete Structures · Winter 14/15 · TUM
Prep Course: Mathematics for Computer Science · Winter 14/15 · TUM
Fundamentals of Algorithms and Data Structures · Summer 2013 · TUM
Linear Algebra for Physicists · Winter 2012/13 · TUM
Introduction to Software Engineering · Summer 2011 · TUM
- Pedagogical Training* Supervision and Assessment of Degree Project Work · Autumn 19 · KTH
Basic Teaching and Communication · Spring 17 · KTH
Teaching Certificate: Tutoring · Summer 13–Winter 14/15 · ProLehre TUM

SUPERVISION AND MENTORSHIP OF STUDENTS

<i>Summer 2025</i>	Co-Mentor for Inderpal Singh: Exploring Scientific Algorithms and Machine Learning-Assisted Techniques for Peak Finding in GISAXS data Summer Intern at LBNL while undergraduate student in Computer Science @ California State University – East Bay · mentored by Raja Vyshnavi Sriramoju
<i>Summer 2025</i>	Co-Mentor for Zoheb Sharif: ALS Publication and User Data Visualization Summer Intern at LBNL while undergraduate student in Computer Science @ California State University – East Bay · mentored by Cindy Lee, co-mentored by David Abramov and Elizabeth Clark
<i>Summer 2024</i>	Mentor for Nicholas Ferreira: Improving Web-Based 3D Visualization of Large X-Ray MicroCT Data Sets Summer Intern at LBNL while undergraduate student in Computer Science @ California State University – East Bay · co-mentored by Dula Parkinson
<i>Summer 2023</i>	Mentor for Vinh Pham: 30 Years of the Advanced Light Source – Using Data Visualization to Explore the ALS’s Scientific Evolution and Impact Summer Intern at LBNL while undergraduate student in Computer Science @ California State University – East Bay · co-mentored by Ashley White and Eli Rotenberg
<i>Summer 2023</i>	Co-Mentor for Brandon Kang: Grazing Incidence Small Angle X-Ray Scattering (GiSAXS) Visualization and Analysis Pipeline Summer Intern at LBNL while undergraduate student in Physics & Computer Science, University of California, Berkeley · mentored by Slavomir Nemsak
<i>Summer 2023</i>	Co-Mentor for Nhu Lai: Python-based Workflow for Constructing Soft X-ray Reflectivity Data Collection and Modeling Summer Intern at LBNL while undergraduate student in Chemical Engineering @ San Jose State University · mentored by Qi Zhang and Cheng Wang
<i>Spring 2021</i>	Supervisor for Yuwen Hu: Interactive Visual Exploration of Causal Structures for Neuropathic Pain Diagnosis [🔗 prototype] Master Thesis in Media Technology at KTH · co-supervised by Ruibo Tu
<i>Autumn 2017</i>	Co-Mentor for Sebastian Weiss: Illustrative Rendering of Integral Surfaces [🔗 code] Research Assistant at KTH working on a specialized mesh renderer in Inviwo for highly layered and transparent surfaces · mentored by Tino Weinkauff

SERVICE TO THE COMMUNITY

<i>Workshop Organization</i>	TopoInVis 2026 (Communications Co-Chair), Advanced Light Source Automation and Self-Driving Labs (Co-Organizer)
<i>Program Committee</i>	TopoInVis 2023 (2 papers, review and review coordination), XLOOP 2024 (3 papers, review), TopoInVis 2024 (2 papers, review), IEEE VIS 2025 Short Papers (3 papers, review and review coordination and 2 papers, review), TopoInVis 2025 (1 paper, review and review coordination and 2 papers, review, best paper committee), XLOOP 2025 (2 papers, review), IEEE VIS 2026 Short Papers (3 papers, review and review coordination and 2 papers, review), TopoInVis 2026 (2 papers, review, , best paper committee), XLOOP 2026 (3 papers, review)
<i>Conference Paper Review</i>	IEEE VIS 2018 (1 paper), IEEE VIS 2020 (1 paper), IEEE VIS 2022 (1 paper), EuroVis 2023 (2 papers), IEEE VIS 2023 (4 papers), PacificVis 2024 (1 paper), EuroVis 2024 EGPGV (1 paper), IEEE VIS 2024 (5 papers), PacificVis 2025 (2 papers), EuroVis 2025 (4 papers), IEEE VIS 2025 (4 papers), EuroVis 2026 (3 papers), IEEE VIS 2026 (1 paper),

<i>Journal Paper Review</i>	Neurocomputing (1 paper), Digital Discovery (1 paper), Transactions on Visualization and Graphics (1 paper), Computers & Graphics (1 paper), Applied Crystallography (1 paper)
<i>Open-Source Development and Review</i>	ALS Computing [code], BlueSky Collaboration [code], MLExchange [code], ILLUMINE [code], Grazing Ray Initiative [code] Inviwo (2017-2022) [code]
<i>Outreach and Events</i>	Panelist at the DOE Python Exchange (DOEPy) on February 28, 2024 and December 4, 2024, Panelist at a Professional Career Panel Event for the Mathematics, Engineering, and Science Achievement (MESA) University Program at Cal State East Bay (CSUEB MESA U), Mentor to several summer interns in the Advancing STEM Pioneers In Research in Energy Sciences (ASPIRES) internship program, Mentor and Speaker at various events to support Women in STEM (.e.g Girl's Day , Introduce a Girl to Engineering , Girls in ICT), Moderator at various events (CanSAS Working Group Update, AI@LBNL Workshop Breakout, Autonomous Experiments Panel Discussion)
<i>IDEA</i>	Member-at-large of the Advanced Light Source Inclusion, Diversity, Equity, & Accountability (IDEA) Committee · April 2023 - January 2025
<i>Doctoral Student Representation</i>	Member of the EECS PhD Student Council · January 2020 - December 2021 Chair of the EECS PhD Student Council (during 2021) Member of the Council for Third Cycle Education (EECS Forskarutbildningsråd) Member of the School Management Council (EECS Ledningsråd , during 2021) Program-Responsible PhD Student for the Doctoral Program in Computer Science (during 2020) Member of the Doctoral Program Council in Computer Science (Forskarprogramrådet) for the Specializations <i>High Performance Computing and Visualization</i> and <i>Computational Biology</i>