

CONTACT INFORMATION	Carl Zeiss AG Carl-Zeiss-Strasse 22 73447 Oberkochen, Germany	Phone: +49 (0)151 213-67757 E-mail: ulrike.boehm@zeiss.com Home: ulrikeboehm.org
SUMMARY	Physicist, optical scientist & data scientist with a passion for community building/engagement, outreach, and teaching: I have over ten years of experience designing, building, and running advanced optical systems, analyzing (microscopy) data, and developing (image) acquisition & analysis workflows. Furthermore, I have been highly engaged in community building/engagement, outreach, and teaching activities focusing on community service, women/diversity in science, open science, and optics/microscopy for more than 15 years.	
RESEARCH INTERESTS	<ul style="list-style-type: none"> • Optics and photonics, particularly involving imaging, microscopy, and optical metrology • Instrument design, development, and application across a wide range of applications (from the life sciences to the physical sciences) • Development of image and data processing and analysis tools • Machine learning and its application in (microscopic) image and data analysis • Statistical methods for large datasets • Open software and hardware tools for imaging, microscopy, and optical metrology 	
POSITIONS	<p>Optical Scientist & Project Team Lead 2022 - present Corporate Research & Technology, Carl Zeiss AG, Oberkochen, Germany</p> <ul style="list-style-type: none"> • Project team lead of a development team within the Corporate Research & Technology (CRT) section at Carl Zeiss AG, working on new tools for imaging, microscopy, & optical metrology • Review and unlock the latest optical trends in imaging, microscopy, & optical metrology • Strong collaboration with internal and external partners • Design and construction of early optical demonstrators/prototypes and their respective control and analysis schemes <p>Research Specialist 2019 - 2021 Janelia Research Campus, Ashburn, VA, USA</p> <ul style="list-style-type: none"> • Design, construction, modification, and troubleshooting of advanced optical systems (iPALM, Lattice Light Sheet Microscope, SiMView Light Sheet Microscope, Aberration Corrected Multifocal Microscope, MOSAIC, FIB-SEM, cryo-SIM, etc.) • Support of (inter)national scientists with their imaging experiments via technical consultations and during their data acquisition at the instruments of Janelia's Advanced Imaging Center (AIC) and Janelia's Light Microscopy Core, and at various other imaging modalities on campus • Troubleshooting of sample preparation • Development and implementation of new image and data analysis strategies for Janelians and users from around the world • Review of proposal drafts and proposals submitted to the Advanced Imaging Center • Design and realization of microscopy and data analysis workshops, symposia, and conferences <p>Postdoctoral Research Fellow 2017 - 2018 National Institutes of Health, National Cancer Institute, Bethesda, MD, USA</p> <ul style="list-style-type: none"> • Design and construction of a microscope for live-cell 5-color single-molecule transcription imaging in eukaryotic cells at high resolution in time and space to capture promoter-enhancer interactions • Development of advanced fluorescence labeling strategies for the genome based on dCas9 (CAS-FISH) • Computational modeling and data analysis of 4D genome data 	

	Ph.D. Student	2010 - 2016
	Max Planck Institute for Biophysical Chemistry, Göttingen, Germany	
	Department of NanoBiophotonics (Prof. Dr. Stefan W. Hell)	
	<i>Dissertation title:</i> "4Pi-RESOLFT nanoscopy"	
	<i>Advisor:</i> Prof. Dr. Stefan W. Hell	
	<ul style="list-style-type: none"> • Running of various imaging experiments (samples: block copolymers, synaptic vesicles) on an isoSTED microscope • Design and construction of a two-color STED microscope and a 4Pi-RESOLFT nanoscope, including acquisition and data analysis software • System/sample testing and optimization 	
	Master's Student	2009
	Max Planck Institute of Biochemistry, Martinsried/Munich, Germany	
	Department of Molecular Structural Biology (Prof. Dr. Wolfgang Baumeister)	
	<i>Dissertation title:</i> "Correlative microscopy at liquid nitrogen temperature"	
	<i>Advisors:</i> Dr. Jürgen M. Plitzko, Prof. Dr. Wolfgang Baumeister	
	<ul style="list-style-type: none"> • Development and testing of a cryo transfer shuttle (CryoStage²) for the transfer of amorphous frozen-hydrated samples from a fluorescence to an electron microscope for correlative microscopy • Further development and testing of the software based on scale-invariant feature transform (SIFT) for the correlative microscopy approach 	
	Undergraduate Researcher - various research assistant positions	2005 - 2008
	<ul style="list-style-type: none"> • Evaluation of the mechanical properties of actin filaments in combination with different actin-binding proteins at the Physics Department of the Technical University of Munich, Germany - Prof Andreas Bausch (2008) • Study of HEK cells with FLIC-microscopy at the Max Planck Institute of Biochemistry, Martinsried, Germany - Prof Peter Fromherz (2008) • Analysis of Multi-SANS data (with MIRA) and data of Cytochrome C (with the Neutron Spin Echo RESEDA) at the Research Neutron Source Heinz Maier-Leibnitz (FRM II), Munich, Germany - Dr. Robert Georgii and Prof Peter Böni (2007) • Study of surfaces and DNA with an AFM at the Physics Department of the Technical University of Munich, Germany - Prof Thorsten Hugel (2006) • Performance evaluation of an animal PET scanner at the university hospital "Rechts der Isar", Munich, Germany - Prof Sibylle Ziegler (2006) • Data analysis of water levels of the Baltic Sea at the Leibnitz Institute for Baltic Sea Research, Warnemünde, Germany - Dr. Torsten Seifert (2005) 	
EDUCATION	MicroMasters in Statistics and Data Science	2020 - 2021
	Massachusetts Institute of Technology / MITx, Cambridge, MA, USA	
	Ph.D. in Physics	2010 - 2015
	Heidelberg University, Heidelberg, Germany	
	Diploma in Physics	2004 - 2009
	Technical University of Munich, Munich, Germany	
HONORS & AWARDS	Leadership Academy Fellowship , German Scholars Organization e.V., Fellow	2023
	Helmsley Fellowship , Helmsley Charitable Trust, Fellow	2017
	66th Lindau Nobel Laureate Meeting , Participant	2016
	Excellence Award , Max Planck Society, Fellow	2010
	Oskar Karl Forster Scholarship , Technical University of Munich, Grantee	2009
	Study Career Scholarship , Technical University of Munich, Fellow	2008

26. Nogueira, A.T., Herron J.C., O’Shaughnessy E.C., **Boehm U.** et al., *Resolving protein conformation in iPALM*. Biophysical Journal (2023). submitted
25. Schmied C., Nelson M., Avilov M., Bakker G.-J., Bertocchi C., Bischof J., **Boehm U.** et al., “*Community-developed checklists for publishing images and image analysis*”. Nature Methods (2023). submitted
25. Schmied C., Nelson M., Avilov M., Bakker G.-J., Bertocchi C., Bischof J., **Boehm U.** et al., “*Community-developed checklists for publishing images and image analysis*”. zenodo (2023). DOI:10.5281/zenodo.7642560
24. Schmied C., Nelson M., Avilov M., Bakker G.-J., Bertocchi C., Bischof J., **Boehm U.** et al., “*Community-developed checklists for publishing images and image analysis*”. arXiv (2023). DOI:10.48550/arXiv.2302.07005
23. Reiche, M.A., Aaron J., **Boehm U.** et al., *When light meets biology - how the specimen affects quantitative microscopy*. J. Cell Sci. (2022). DOI:10.1242/jcs.259656
22. Gaudreault N., . . . , **Boehm U.** et al., *Illumination Power and Illumination Stability*. protocol.io (2022). DOI:10.17504/protocols.io.bzp8p5rw
21. **Boehm U.** *Janelia+EMBL BioImaging Seminar Series: How We Started a Successful Seminar Series during the Pandemic*. FocalPlane, p1 (2022). DOI:https:10.1242/focalplane.6011
20. Rigano A., . . . , **Boehm U.** et al., *Micro-Meta App: an interactive tool for collecting microscopy metadata based on community specifications*. Nature Methods 18, p1489–1495 (2021). DOI:10.1038/s41592-021-01315-z
19. Hammer M., Huisman M., Rigano A., **Boehm U.** et al., *Towards community-driven metadata standards for light microscopy: tiered specifications extending the OME model*. Nature Methods 18, p1427–1440 (2021). DOI:10.1038/s41592-021-01327-9
18. **Boehm U.***, Nelson G.* et al., *QUAREP-LiMi: A community-driven initiative to establish guidelines for quality assessment and reproducibility for instruments and images in light microscopy*. Journal of Microscopy, p1-18 (2021). DOI:10.1111/jmi.13041
17. **Boehm U.**, Galbraith C. *Extending the performance capabilities of isoSTED*. Biophysical Journal, p3237-3239 (2021). doi:https://doi.org/10.1016/j.bpj.2021.07.005
16. Rigano A., . . . , **Boehm U.** et al., *Micro-Meta App: an interactive software tool to facilitate the collection of microscopy metadata based on community-driven specifications*. bioRxiv, p1-23 (2021). DOI:10.1101/2021.05.31.446382
15. **Boehm U.***, Nelson G.* et al., *QUAREP-LiMi: a community endeavor to advance quality assessment and reproducibility in light microscopy*. Nature Methods, p1-4 (2021). DOI:10.1038/s41592-021-01162-y
14. Huisman M., Hammer M., Rigano A., **Boehm U.** et al., *A perspective on Microscopy Metadata: data provenance and quality control*. arXiv, p1-15 (2021). DOI:https://arxiv.org/abs/1910.11370
13. Hammer M., Huisman M., Rigano A., **Boehm U.** et al., *Towards community-driven metadata standards for light microscopy: tiered specifications extending the OME model*. bioRxiv, p1-27 (2021). DOI:110.1101/2021.04.25.441198
12. Rigano A., **Boehm U.** et al., *WU-BIMAC/NBOMicroscopyMetadataSpecs: 4DN-BINA-OME (NBO) Microscopy Metadata Specifications*. zenodo, (2021). DOI:10.5281/zenodo.4710731
11. **Boehm U.***, Nelson G.* et al., *QUAREP-LiMi: A community-driven initiative to establish guidelines for quality assessment and reproducibility for instruments and images in light microscopy*. arXiv, p1-17 (2021). DOI:https://arxiv.org/abs/2101.09153
10. Galbraith J., Aaron J., **Boehm U.**, Chew T.-L. and Galbraith C., *Resolving the 3D Nano-architecture of the Actin Cytoskeleton*. Microscopy and Microanalysis, p1 (2020). DOI:10.1017/S1431927620016736

9. Brown-Harding H., Cordelieres F., Poujol C., **Boehm U.**, Collinson L., *A 'lockdown post' from facility managers across the world*. FocalPlane, p1 (2020). DOI:10.1242/focalplane.1244
8. **Boehm U.**, Hell S.W., Schmidt, R., *4Pi-RESOLFT nanoscopy*. Nature Comm. 7 (10504), p1-8 (2016). DOI:10.1038/ncomms10504
7. **Boehm U.**, *4Pi-RESOLFT nanoscopy*. PhD Thesis, Heidelberg University (2016) DOI: 10.11588/HEIDOK.00020200
6. **Boehm U.**, Schmidt R., Hell S.W., *Live-cell 4pi nanoscopy*. European Biophysics Journal with Biophysics Letters 2015 Jul 1 (Vol. 44, pp. S75-S75). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.
5. Ullal C.K., Primpke S., Schmidt R., **Boehm, U.**, Egner A., Vana P, Hell S.W., *Flexible Microdomain Specific Staining of Block Copolymers for 3D Optical Nanoscopy*. Macromolecules, 44, p7508–7510 (2011). DOI: 10.1021/ma201504f
4. Ullal C., Schmidt R., **Boehm U.**, Primpke S., Vana P, Hell W.S., *STED Microscopy as a Characterization Tool for Three Dimensionally Nanostructured Block Copolymer Thin Films*. APS. 2011 Mar;2011:A43-002.
3. Rigort A., Bäuerlein F.J., Leis A., Gruska M., Hoffmann C., Laugks T., **Boehm U.**, Eibauer M., Gnaegi H., Baumeister W. and Pitzko J.M., *Micromachining tools and correlative approaches for cellular cryo-electron tomography*. J. Struct. Biol. 172, p169–179 (2010). DOI:10.1016/j.jsb.2010.02.011
2. Rigort A., Mathisen C., **Boehm U.**, Leis A., Lich B., Hayles M., Laugks T., Baumeister W. and Pitzko J.M., *Integrative Cryo-Correlative Microscopy Approaches*. Microscopy and Microanalysis. Vol 16(S2), p186–187 (2010). DOI:10.1017/S1431927610058216
1. **Boehm U.**, *Korrelative Mikroskopie bei Flüssigstickstoff-Temperatur*. Diploma Thesis, Technical University of Munich (2010)

* These authors contributed equally to this work

PEER REVIEW

Angewandte Chemie (International ed.)
Biophysical Journal
Biophysical Reports
Frontiers in Bioinformatics
Journal of Cell Science
Journal of Microscopy
Nature Methods
Review Commons
STAR Protocols

PRESENTATIONS

7th Max Planck Symposium for Alumni and Early Career Researchers (<i>invited</i>)	2022
Harnack House, Berlin, Germany	
5th Annual Postdoc Symposium (<i>invited</i>)	2022
Yale University, New Haven, CN, United States of America	
Chan Zuckerberg Initiative (CZI) Imaging 2022 Annual Meeting (<i>invited</i>)	2022
San Francisco, CA, United States of America	
Second Joint Meeting of the Irish Microscopy Society and the Scottish Microscopy Society (<i>invited</i>)	2022
National University of Ireland Galway, Galway, Ireland	
Advanced Imaging Methods Workshop 2022 (<i>invited</i>)	2022
UC Berkeley, Berkeley, CA, United States of America	
Chromatin Imaging/Nuclear Architecture SubGroup (<i>invited</i>)	2021

Harvard & MIT, Boston, MA, United States of America	
Janelia Advisory Committee Meeting	2021
Better Science through Open Science and Collaborative Teams (<i>invited</i>)	
Janelia Research Campus, Ashburn, VA, United States of America	
Junior Scientist Workshop on Biological Optical Microscopy (<i>invited</i>)	2019
Janelia Research Campus, Ashburn, VA, United States of America	
Transcription Seminar (<i>invited</i>)	2019
Albert Einstein College of Medicine, New York, NY, United States of America	
Microscopy Seminar (<i>invited</i>)	2019
Havard Medical School, Boston, MA, United States of America	
Microscopy Lunch Seminar (<i>invited</i>)	2019
UMass Medical School, Worcester, MA, United States of America	
Single Biomolecules Meeting	2018
Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, United States of America	
NIH Light Microscopy Interest Group Seminar (<i>invited</i>)	2018
NIH, Bethesda, MD, United States of America	
Chan Zuckerberg Initiative (CZI) Imaging Workshop (<i>invited</i>)	2017
CZ Biohub, San Francisco, CA, United States of America	
Chesapeake Bay Area Single Molecule Biology Meeting	2017
Johns Hopkins University, Baltimore, MD, United States of America	
Frontiers in Imaging Science Conference	2017
Janelia Research Campus, Ashburn, VA, United States of America	
Single Molecule Biophysics Conference	2017
Aspen Center for Physics, Aspen, CO, United States of America	
Labeling and Nanoscopy Conference	2016
DKFZ, Heidelberg, Germany	
MPIbpc Campus Seminar (<i>invited</i>)	2016
Max Planck Institute for Biophysical Chemistry, Göttingen, Germany	
NCI Departmental Seminar (<i>invited</i>)	2016
NIH, Bethesda, MD, United States of America	
Departmental Seminar (<i>invited</i>)	2016
Wyss Institute at Havard University, Boston, MA, United States of America	
Lunch Talk (<i>invited</i>)	2016
Havard University, Cambridge, MA, United States of America	
Biophysical Society Annual Meeting	2016
Los Angeles, CA, United States of America	
Seeing Is Believing Symposium	2015
EMBL, Heidelberg, Germany	
Deutsche Physikerinnen Tagung (<i>invited</i>)	2015
University of Göttingen, Göttingen, Germany	
Annual meeting of the European Light Microscopy Initiative (ELMI)	2015
Sitges, Spain	
Focus on Microscopy (FOM)	2015
Göttingen, Germany	
PROSPECTS. First Plenary Meeting	2010
Punta Negra, Majorca/Spain	

TEACHING

”Widening the Lens” Program - Fall Semester (virtual workshop) Lecturer, Vanderbilt University School of Engineering Nashville, TN, United States of America	2022
7th Max Planck Symposium for Alumni and Early Career Researchers Lecturer, Max Planck Society Berlin, Germany	2022
”Women in Imaging” Bootcamp (virtual workshop) Lecturer, University of California, Berkeley Berkeley, CA, United States of America	2022
”Widening the Lens” Program - Spring Semester (virtual workshop) Lecturer, Vanderbilt University School of Engineering Nashville, TN, United States of America	2022
NIH FAES Imaging - From IF & FISH to Automated & Confocal Microscopy (virtual workshop), Instructor of the Image Analysis Bootcamp, National Institutes of Health, Bethesda, United States of America	2021
Fiji Image Processing and Analysis Workshop (virtual workshop) Instructor of the Superresolution Data Handling Module, Turku Bioscience Centre, Turku, Finland	2021
NIH FAES Super Resolution Workshop (virtual workshop) Instructor, Foundation for Advanced Education in the Sciences (FAES) Bethesda, United States of America	2021 - 2022
Fiji Macros Programming (virtual workshop) Instructor, Janelia Research Campus, Ashburn, United States of America	2020
DECODE for Single Molecule Localization Microscopy (virtual workshop) at the <i>From Image to Knowledge with ImageJ & Friends</i> conference Instructor, Janelia Research Campus, Ashburn, United States of America	2020
NIH FAES Image Processing and Analysis workshop (virtual workshop) Instructor, National Institutes of Health, Bethesda, United States of America	2019 - 2021
Open Science in Imaging and Microscopy (breakout session during a workshop) Instructor, Janelia Research Campus, Ashburn, United States of America	2019
Advanced Imaging Techniques in Biomedical Sciences (summer intern journal club) Instructor, National Institutes of Health, Bethesda, United States of America	2018
Introduction to microscopy (graduate course) Teaching assistant, University of Massachusetts Medical School, Worcester, United States of America	2017
Optical Microscopy & Imaging in the Biomedical Sciences (summer intern journal club) Instructor, National Institutes of Health, Bethesda, United States of America	2017
Advanced physics laboratory course for physics students (undergraduate course) Teaching assistant, Heidelberg University, Germany	2011
Experimental Physics III: Optics (undergraduate course) Teaching assistant, University of Göttingen, Germany	2011
Experimental Physics IV: Quantum, atomic and molecular physics (undergraduate course), Teaching assistant, University of Göttingen, Germany	2010
Theoretical Physics I: Theoretical Mechanics (undergraduate course) Teaching assistant, Technical University of Munich, Germany	2009
Theoretical Physics II: Electrodynamics (undergraduate course) Teaching assistant, Technical University of Munich, Germany	2008

MENTORING	Mentoring of Ph.D. and Master's Students	2023 - present
	Focus: Navigating an industry career & general career mentoring Technical University of Munich, Munich, Germany	
	Mentoring of Ph.D. and Master's Students	2022 - present
	Focus: Navigating an industry career, how to work in an optics laboratory & in-depth support of individual research projects Carl Zeiss AG, Oberkochen, Germany	
	Janelia Buddy Program for International Scientists	2020 - 2021
	Focus: Facilitating the transition of international scientists to Janelia in partnership with Janelia's Human Resource Department Janelia Research Campus, Ashburn, United States of America	
	Mentoring of Postbac Students	2020 - 2021
	Focus: Navigating a scientific career Janelia Research Campus, Ashburn, United States of America	
	Mentoring of Ph.D., College, and High School Students	2017 - 2018
	Focus: Navigating a scientific career, how to work in an optics laboratory & in-depth support with individual research projects National Institutes of Health, Bethesda, United States of America	
	Mentoring of Ph.D. and Master's Students	2010 - 2016
	Focus: Navigating a scientific career, how to work in an optics laboratory & in-depth support of individual research projects Max Planck Institute for Biophysical Chemistry, Göttingen, Germany	
CONFERENCE ORGANIZATION	iCademy (onboarding event for corporate research and technology (CRT)), Organizer	2022
	Carl Zeiss AG, Oberkochen, Germany	
	Advanced Imaging Methods Workshop 2022 , Organizer	2022
	UC Berkeley, Berkeley, CA, United States of America	
	OIG-ABG Educational Lectures , Organizer	2021 - 2022
	Ashburn, VA, United States of America	
	Janelia+EMBL BioImaging Seminar Series , Organizer & advisor	2020 - present
	Ashburn, VA, United States of America	
	Optical Interest Group , Organizer	2020 - 2022
	Ashburn, VA, United States of America	
	Imaging Africa Microscopy Club , Organizer	2020
	Ashburn, VA, United States of America	
	Frontiers in Imaging Science Conference , Organizer	2019
Ashburn, VA, United States of America		
Labeling and Nanoscopy Conference 2018 , Website and social media support	2018	
Heidelberg, Germany		
International Opportunities EXPO , Organizer	2018	
National Institutes of Health, Bethesda, MD, United States of America		
Division of International Services Immigration Symposium , Organizer	2017 - 2018	
National Institutes of Health, Bethesda, MD, United States of America		
I, Scientist Conference , Organizer	2017	
Berlin, Germany		
Labeling and Nanoscopy Conference 2016 , Organizer	2016	
Heidelberg, Germany		
Focus on Microscopy (FOM) , Social media support	2015 - 2019	

	PhDnet General Meeting, Organizer Bonn, Germany	2011
PROFESSIONAL SERVICES	BioImaging North America, Committee member of the "Diversity, Equity & Inclusion" working group Madison, Wisconsin, United States of America	2022 - present
	Global BioImaging, Committee member of the "Training Core Facility Imaging Scientists" working group Heidelberg, Germany	2021 - present
	Wiley Analytical Science Magazine, Editorial board member Weinheim, Germany	2021 - present
	CZI Expanding Global Access to Bioimaging, Grant reviewer San Francisco, United States of America	2021
	QUAREP-LiMi, Chair of the "White Paper" working group Freiburg, Germany	2020 - present
	Frontiers in Bioinformatics, Review Editor for Computational BioImaging Lausanne, Switzerland	2020 - present
	CZI Imaging Scientists Round 2, Grant reviewer San Francisco, United States of America	2020
	QUAREP-LiMi, Vice-chair of the "Image Quality" working group Freiburg, Germany	2020 - present
	German BioImaging, Committee member of the working groups for (1) Training and Knowledge Transfer and (2) Image Data Analysis & Management Konstanz, Germany	2020 - present
	BioImaging North America, Committee member of the "Quality Control and Data Management" working group Madison, Wisconsin, United States of America	2020 - present
	Janelia's Optical Interest Group, Coordinator & advisor Ashburn, Virginia, United States of America	2020 - present
	GSO German Scholars Organization e.V., Coordinator for Local Chapter of German Scientists, Ashburn	2020 - 2021
	Accelerating Science and Publication in Biology (ASAPbio), Ambassador	2018 - 2019
	eLife Early-Career Advisory Group, Ambassador	2017 - 2019
	NIH Laser Safety Advisory Committee, Committee member for the NCI National Institutes of Health, Bethesda, United States of America	2018
	NIH Visiting Fellows Committee, Chair National Institutes of Health, Bethesda, United States of America	2017 - 2018
	NIH Light Microscopy Interest Group, Coordinator & advisor National Institutes of Health, Bethesda, United States of America	2016 - 2021
	DPG Arbeitskreis für Challengleichheit, Board member & deputy spokesperson, Bad Honnef, Germany	2016 - present
	Lindau Nobel Laureate Meeting, Freelance writer Lindau, Germany	2016 - present
	66th Lindau Nobel Laureate Meeting, "Women in Science"-correspondent Lindau, Germany	2016
	Lise Meitner Gesellschaft e.V., Co-founder and board member Berlin, Germany	2011

	Max Planck PhDnet, Steering group 2011 member & deputy spokesperson Max Planck Society, Munich, Germany	2011
	PhD/Postdoc Community, PhD/Postdoc representative Max Planck Institute for Biophysical Chemistry, Göttingen, Germany	2011 - 2014
CERTIFICATES & TRAINING	HBS Disruptive Strategy Disruptive Strategy is a 6-week, 30-hour online certificate program from Harvard Business School Online. It helps students become fluent in disruption theory and gain confidence in articulating complex viewpoints, apply strategic frameworks to assess new opportunities and potential threats, and acquire techniques for executive-level strategy formulation and team management.	2022
	Fundamentals of Statistics An 18-week in-depth introduction course by MITx to develop and understand fundamental statistical principles on firm mathematical grounds starting from the construction of estimators and tests, as well as an analysis of their asymptotic performance.	2021
	Leadership Principles for Scientists, Engineers, and Researchers A four-month and four-course online program from MIT that empowers engineers, scientists, and researchers with the leadership insight needed to solve problems, innovate, and drive change.	2021
	Machine Learning with Python: from Linear Models to Deep Learning A 15-week in-depth introduction course by MITx to the field of machine learning, from linear models to deep learning and reinforcement learning, through hands-on Python projects.	2021
	Data Analysis for Social Scientists An 11-week course by MITx to learn methods for harnessing and analyzing data to answer questions of cultural, social, economic, and policy interest.	2020
	Probability - The Science of Uncertainty and Data A 16-week course by MITx to build foundational knowledge of data science with an introduction to probabilistic models, including random processes and the essential elements of statistical inference.	2020
	Fierce Conversations program A 6-week course offered by Howard Hughes Medical Institute about Feedback, Confrontation, Team, Delegation, Coaching, and Accountability.	2020
	LabVIEW Core 2 A certificate course offered by National Instruments about the LabVIEW basics.	2020
	LabVIEW Core 1 A certificate course offered by National Instruments about the LabVIEW basics.	2020
	HBS Entrepreneurship Essentials Entrepreneurship Essentials is a 4-week, 30-hour online certificate program from Harvard Business School. Entrepreneurship Essentials introduces participants to the entrepreneurial journey from finding an idea to gaining traction in the marketplace to raising capital for a venture. Participants learn an overarching framework - People, Opportunity, Context, Deal - to evaluate opportunities to manage start-ups and finance ventures.	2020
	HBS Management Essentials Management Essentials is an 8-week, 35-hour online certificate program from Harvard Business School. Management Essentials takes a distinctive, hands-on approach to management. Participants in this course learn to identify, understand, design, and shape critical organizational and managerial processes to get the work done.	2019
	HBS CORE (Credential of Readiness) CORE (Credential of Readiness) is a 150-hour certificate program on business fundamentals from Harvard Business School. The CORE is comprised of three courses - Business Analytics, Economics for Managers, and Financial Accounting - developed by leading Har-	2019

vard Business School faculty and delivered in an active learning environment based on the HBS signature case-based learning model.

Scientists Teaching Science 2018

at the Office of Intramural Training and Education (OITE) at the National Institutes of Health, Bethesda, United States of America (9-week online pedagogy course)

Research Mentor Training 2018

at the Office of Intramural Training and Education (OITE) at the National Institutes of Health, Bethesda, United States of America

Business of Science for Scientists 2018

by SciPhD at the National Cancer Institute in Shady Grove, United States of America

Chromatin, Epigenetics and Gene Expression Course 2018

at the Cold Spring Harbor Laboratory (CSHL) in Cold Spring Harbor, NY, United States of America, Course instructors: Prof Karen Adelman, Dr Luciano Di Croce, Prof Geeta Narlikar, Prof Ali Shilatifard

BioTech2: Recombinant DNA Methodology 2017

at the Foundation for Advanced Education in the Sciences at the NIH (FAES), Bethesda, United States of America

Management Bootcamp for Postdocs 2017

at the Office of Intramural Training and Education (OITE) at the National Institutes of Health, Bethesda, United States of America

Ethics in Research Training for Postdocs 2017

at the Office of Intramural Training and Education (OITE) at the National Institutes of Health, Bethesda, United States of America

Workplace Dynamic Series 2016

about Self-Awareness, Conflict & Feedback, Team Skills, Diversity In A Multicultural Society at the Office of Intramural Training and Education (OITE) at the National Institutes of Health, Bethesda, United States of America

COMPUTER SKILLS Languages: Python, MATLAB, LabVIEW, R
Software: Inventor (CAD), Zemax, Imaris, Fiji, ImageJ

PROFESSIONAL AFFILIATION American Physical Society, German Physical Society (DPG), BioImaging North America (BINA), German BioImaging Society (GerBI), Network of European BioImage Analyst (NEUBIAS), Quantitative BioImaging Society, Deutsche Gesellschaft für angewandte Optik (DGaO)

LANGUAGES German - native language
English - fluent, spoken and written
French - basic knowledge
Swedish - basic knowledge

REFERENCES Available upon request

Last updated March 4, 2023.