CIRRICULUM VITAE

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature_____   Date_____04/4/2020_____

I. Personal Information

I.A. UID, Last Name, First Name, Middle Name, Contact Information

111518975
Cameron, Maria Kourkina
Mailing Address: 4176 Campus Drive — William E. Kirwan Hall, Department of Mathematics, University of Maryland, College Park, MD 20742-4015
E-mail: cameron@math.umd.edu, mariakc@umd.edu
URL: http://www.math.umd.edu/~mariakc/

I.B. Academic Appointments at UMD
Assistant Professor, Department of Mathematics, 2010 – 2017
Associate Professor, Department of Mathematics, 2017 - present
Affiliate Associate Professor, Department of Computer Science, 07/01/2019 — present

I.C. Administrative Appointments at UMD

I.D. Other Employment

Dates	Position	Institution
2007-2010	Courant Instructor	Department of Mathematics, New York University

I.E. Educational Background

Dates	Degree	Institution
2007	Ph.D. in Applied Mathematics	University of California, Berkeley
1998	M.Sc. in Applied Mathematics	Moscow Institute of Physics and Technology, Russia
1997	B.Sc. in Applied Mathematics	Moscow Institute of Physics and Technology, Russia

I.F. Professional Certifications and Licenses

II. Research, Scholarly and Creative Activities

II.A. Books *(include full citation information and ISBN)*
II.A.1. Books Authored (s*pecify original or revised edition)*

II.A.2. Books Edited
II.A.3. Books Translated (*as translator)*
II.A.4. Textbooks
II.A.5. Major Reference Works
II.A.6. Exhibition Catalogs
II.A.7. Other

II.B. Chapters
II.B.1. Books
II.B.2. Collections
II.B.3. Encyclopedia
II.B.4. Series
II.B.5. Research Paper
II.B.6. Other

II.C. Articles in Refereed Journals
Full citation, inclusive of all authors in the order of publication and page numbers. Review articles and invited articles should be so identified. Optional: include DOI.

• S. F. Potter, and M. K. Cameron, Ordered Line Integral Methods for Solving the Eikonal Equation, *Journal of Scientific Computing*, 81(3) (2019) 2010—2050, https://doi.org/10.1007/s10915-019-01077-z, arXiv:1902.06825

• S. Yang and M. K. Cameron, Computing the quasipotential for highly dissipative and chaotic SDEs. An application to stochastic Lorenz'63, *Communications in Applied Mathematics and Computational Science (CAMCoS),* 14-2 (2019), 207--246. DOI 10.2140/camcos.2019.14.207, arXiv:1809.09987v2

• S. Yang, S. F. Potter, and M. K. Cameron, Computing the quasipotential for nongradient SDEs in 3D, *Journal of Computational Physics,* 379 (2019) 325--350, https://doi.org/10.1016/j.jcp.2018.12.005, arXiv: 1808.00562

• D. Dahiya and M. Cameron, An ordered line integral method for computing the quasi-potential in the case of variable and anisotropic diffusion, *Physica D*, 382—383, 33—45 (2018), https://doi.org/10.1007/s10915-017-0590-9, arXiv:1806.05381

• D. Dahiya and M. Cameron, Ordered Line Integral Methods for Computing the Quasi-potential, *J. Scientific Computing*, 75(3) 1351—1384 (2018), https://doi.org/10.1007/s10915-017-0590-9, ArXiv: 1706.07509

• Modeling Aggregation Processes of Lennard-Jones Particles via Stochastic Networks, Yakir Forman and Maria Cameron, *J. Statistical Physics* 168(2), 408-433 (2017), ArXiv: 1612.09599

• T. Gan and M. Cameron, "A Graph-Algorithmic Approach for the Study of Metastability in Markov Chains", *J. Nonlinear Science*, 27, 3, 927-972 (2017), doi: 10.1007/s00332-016-9355-0, ArXiv: 1607.00078

• B. Nolting, C. Moore, C. Stieha, M. Cameron, K. Abbott, "QPot: An R package for stochastic differential equation quasi-potential analysis", *R Journal* 8, 2, December 2016,

https://journal.r-project.org/archive/accepted/nolting-moore-stieha-etal.pdf, ArXiv: 1510.07992v1

• M. Cameron and T. Gan, "Spectral Analysis and Clustering of Large Stochastic Networks. Application to the Lennard-Jones-75 cluster", *Molecular Simulation*, *42 (2016), Issue 16: Special Issue on Nonequilibrium Systems, 1410-1428*. arXiv: 1511.05269, DOI:10.1080/08927022.2016.1139109

• M. Cameron, "Metastability, Spectrum, and Eigencurrents of the Lennard-Jones-38 Network", *J. Chem. Phys.*, (2014), 141, 184113, arXiv: 1408.5630, DOI: 10.1063/1.4901131

• M. Cameron, "Computing the Asymptotic Spectrum for Networks Representing Energy Landscapes using the Minimum Spanning Tree", *Networks and Heterogeneous Media*, , vol. 9, number 3, Sept. (2014), arXiv:1402.2869, DOI:10.3934/nhm.2014.9.383

• M. Cameron and E. Vanden-Eijnden, "Flows in Complex Networks: Theory, Algorithms, and Application to Lennard-Jones Cluster Rearrangement", *Journal of Statistical Physics*, 156 (3), 427 (2014), arXiv:1402.1736, DOI: 10.1007/s10955-014-0997-8

• M. K. Cameron, "Computing Freidlin's cycles for the overdamped Langevin dynamics. Application to the Lennard-Jones-38 cluster", *Journal of Statistical Physics*,152, 3, 493-518 (2013). DOI: 10.1007/s10955-013-0770-4

• M. K. Cameron, "Estimation of reactive fluxes in gradient stochastic systems using an analogy with electric circuits", *Journal of Computational Physics*, 247, pp. 137-152 (2013), DOI: 10.1016/j.jcp.2013.03.054

• M. K. Cameron, "Finding the Quasipotential for Nongradient SDEs", *Physica D*: *Nonlinear Phenomena*, 241, 1532-1550 (2012), DOI: 10.1016/j.physd.2012.06.005

• M. Cameron, R. Kohn, and E. Vanden-Eijnden, "The String Method as a Dynamical System", *Journal of Nonlinear Science*, 21, Number 2, 193-230 (2011), DOI : 10.1007/ s00332-010-9081-y

• Cameron M.K., Fomel, S., Sethian, J.A., "Analysis and Algorithms for a Regularized Cauchy Problem arising from a Non-Linear Elliptic PDE for Seismic Velocity Estimation", *Journal of Computational Physics*, 228, 7388-7411, (2009), DOI: 10.1016/ j.jcp.2009.06.036

• Cameron, M.K., Fomel, S., Sethian, J.A., "Time-to-depth conversion and seismic velocity estimation using time-migration velocity", *Geophysics*, 73, VE205, (2008), DOI: 10.1190/1.2967501

• Cameron, M. K., Fomel, S. B., Sethian, J. A., "Seismic Velocity Estimation from Time Migration", *Inverse Problems*, 23 , pp. 1329-1369, (2007), DOI:10.1088/0266-5611/23/4/001

II.D. Published Conference Proceedings
II.D.1. Refereed Conference Proceedings
II.D.2. Non-Refereed Conference Proceedings
II.D.3. Historical Conference Proceedings (10+ years ago)
   • Seismic velocity estimation and time-to-depth conversion of time-migrated images, Maria Cameron*, UC Berkeley; Sergey Fomel, UT Austin; James Sethian, UC Berkeley, *SEG/New*

Orleans 2006 Technical Program Online (SVIP 1.7) http://abstracts.seg.org/techprog.cfm?pMeetingID=3
 • Inverse Problem in Seismic Imaging, Cameron, M.K., Fomel, S., Sethian, *PAMM*, 7, Issue 1, pp. 1024803-1024804, 2007

II.D.4. Other

II.E. Conferences, Workshops, and Talks
II.E.1. Keynotes
II.E.2. Invited Talks

- USNA, Applied Math Seminar, Oct. 20, 2017. Talk: Computing the quasi-potential for the quantification of rare events in stochastic systems
- John Hopkins University, Data Seminar, Oct. 12, 2016, Talk: Modeling the Dynamics of Interacting Particles by means of Stochastic Networks

- NIH seminar, January 23, 2015, Talk: Metastability, Spectrum, and Eigencurrents of Networks Representing Energy Landscapes

- LDEO seminar, Columbia University, October 15, 2014, Talk: Seismic Velocity Estimation from Time Migration

- IPST, UMD, Informal Statistical Physics seminar, Sept. 30, 2014, Talk: Metastability, Spectrum, and Eigencurrents of Networks Representing Energy Landscapes

- UC Berkeley, May 7, 2014. Talk: Computing the asymptotic spectrum for networks representing energy landscapes

- Cornell University, Sept. 21, 2013, Talk: Computational tools for the analysis of rare transitions in stochastic networks

- Duke University, May 6, 2013. Talk: Analysis of the Lennard-Jones-38 stochastic network

- University of Chicago, Jan. 24, 2013. Talk: Dijkstra-like methods for the study of rare events

- George Washington University, Nov. 8, 2012. Talk: Computing transition paths in stochastic systems

- George Mason University, Sept. 21, 2012. Talk: Computing transition paths in stochastic systems

- American University, Dec. 2011. Talk: Computational methods for the study of rare events

- IPST, University of Maryland, Stat. Phys. Seminar, Feb. 2011. Talk: Computing transition paths for rare events

- Cornell University, Aug. 2010. Talk: Computing transition paths for rare events

- Georgia Institute of Technology, Aug. 2010. Talk: Computing transition paths for rare events

- University of Texas, Austin, April 2010. Talk: Computing transition paths for rare events

- MIT, March 2010. Talk: Computing transition paths for rare events

- Harvard University, Feb. 2010. Talk: Computing transition paths for rare events

- NJIT, Oct. 2010. Talk: Analysis of methods for the study of rare events and transition paths

- Columbia University, Oct. 2010. Talk: Analysis of methods for the study of rare events and transition paths

II.E.3. Refereed Presentations
II.E.4. Refereed Abstracts
II.E.5. Refereed Posters
II.E.6. Refereed Panels
II.E.7. Non-Refereed Presentations
II.E.8. Non-Refereed Abstracts
II.E.9. Non-Refereed Posters

- Symposium "Kavli Frontiers in Science", UC Irvine, Oct. 2011. Poster: Finding the quasipotential for nongradient SDEs

- IMA workshop "Molecular Simulations: Algorithms, Analysis, and Applications", May 2009. Poster: The string method as a dynamical system

II.E.10. Non-Refereed Panels
II.E.11. Symposia

- SIAM, Mathematical Aspects of Material Science, Portland, OR, July 9—13, 2018. Talk: Modeling aggregation and dynamics of interacting particles via stochastic networks

- SIAM Uncertainty Quantification, Garden Grove, CA, April 16—19, 2018. Talk: Ordered line integral methods for computing the quasipotential

- SciCADE, University of Bath, UK, September 11-15, 2017. Talk: Modeling aggregation and dynamics of interacting particles via stochastic networks

- FoCM 2017, University of Barcelona, Spain, July 10-19 2017. Talk: Modeling aggregation and dynamics of interacting particles via stochastic networks

- SIAM DS 2017, Snowbird, Utah, May 21-25 2017. Talk: Modeling aggregation and dynamics of interacting particles via stochastic networks

- AIMS, Orlando, Florida, July 1-5, 2016. Talk: A graph-algorithmic approach for the study of metastability in Markov chains with exponentially small transition rates

- FACM conference, NJIT, June 2016. Talk: A graph-algorithmic approach for the study of metastability in Markov chains with exponentially small transition rates

- SIAM Uncertainty Quantification, Lausanne, Switzerland, April 5-8, 2016. Talk: A graph-algorithmic approach for finding characteristic timescales in Markov chains with exponentially small transition rates,

- SIAM Uncertainty Quantification, March 31- Apr. 3, 2014, Savannah, GA. Talk: "Analysis of Lennard-Jones-38 network at temperatures from zero up to the melting point"

- SIAM Annual Meeting, San Diego, July 7-11, 2013. Talk: Dijkstra-like methods for the study of rare events

- ICIAM, Vancouver, July 2011. Talk: Computing transition paths using the MaxFlux approximation

II.E.12. Workshops

- Workshop: Mathematical Challenges Associated with Failure of Brittle Materials, John Hopkins University, HEMI, May 20—21 2019. Talk: Computing the Quasipotential for Nongradient SDEs.

- Workshop: Fluctuation-driven phenomena in nonequilibrium statistical mechanics, *Warwick University, UK*, Sept. 2015, Talk: Spectral Analysis of Stochastic Networks

- TSRC Workshop "Energy Landscapes: Structure, Dynamics, and Exploration Algorithms", *Telluride, CO, USA*, June 29 – July 3, 2015. Talk: "Algorithms for spectral analysis of networks representing energy landscapes"

- Workshop "Small clusters, polymer vehicles, and unusual minima", *ICERM, Brown University, Providence, RI, USA*, March 18, 2015, Talk: Metastability, Spectrum, and Eigencurrents of Networks Representing Energy Landscapes

- Workshop "Energy Landscapes: From Single Molecules to Soft Matter". *Durham University, Durham, England, UK*. Aug. 15-21, 2014. Talk: Is the Lennard-Jones-38 network metastable?

- Workshop "Computational methods for statistical mechanics - at the interface between mathematical statistics and molecular simulation", *ICMS, Edinburgh, Scotland, UK*. June 2-6, 2014. Talk: Analysis tools for networks representing energy landscapes.

- Workshop on Modeling Rare Events in Complex Systems, *National University of Singapore*. Nov. 5-8, 2013. Talk: Finite temperature analysis of stochastic networks

- NSF Workshop "Advanced Statistical Methods for Underground Seismic Event Monitoring and Verification", *Arlington, VA, USA*, March 7, 2013. Talk: Seismic velocity estimation from time migration

- Workshop "Simulation of Rare Events", *SAMSI, Durham, NC, USA*, Feb. 13-14, 2012. Talk: Finding the quasipotential for nongradient SDEs

II.E.13. Colloquia

- Applied Math colloquium, UMBC, March 8, 2019, Talk: Computational methods for the study of stochastic dynamics with small noise

- Applied Math colloquium, University of Arizona, August 24, 2018, Talk: Computational methods for the study of stochastic dynamics with small noise

- CAM colloquium, Cornell University, Sept. 30, 2016, Talk: Modeling the Dynamics of Interacting Particles by means of Stochastic Networks

- University of Maryland, Baltimore County, Feb. 2012. Talk: Computational Methods for the study of rare events.

II.E.14. Historical Conferences, Workshops, Talks (10+ years ago)
- University of Texas, Austin, April 2008. Talk: Seismic velocity estimation from time migration

- Texas A and M University, March 2008. Talk: Seismic velocity estimation from time migration

- Rensselaer Polytechnic Institute, Feb. 2008. Talk: Seismic velocity estimation from time migration

- SIAM Geosciences, Leipzig, Germany, June 2009. Talk: Analysis and algorithms for a regularized Cauchy problem arising from a non-linear elliptic PDE for seismic velocity estimation

- SIAM Annual Meeting, San Diego, July 2008. Talk: Inverse problem in seismic imaging

- ICIAM, Zurich, July 2007. Talk: Inverse problem in seismic imaging

- SEG, New Orleans, Oct. 2006. Talk: Seismic velocity estimation and time-to-depth conversion of seismic images

- FACM, NJIT, May 2008. Talk: Inverse problem in seismic imaging

II.E.15. Other

II.F. Professional Publications
II.F.1. Reports and Non-Refereed Monographs

- Seismic Velocity Estimation from Time Migration, Maria K. Cameron, Ph.D. Thesis, ProQuest, UC Berkeley, 2007

II.F.2. Pre-Print/Working Paper (Not Work in Progress)
II.F.3. Legal Briefs
II.F.4. Policy Briefs
II.F.5. Other

II.G. Book Reviews, Notes, and Other Contributions
II.G. 1. Book Reviews
II.G. 2. Essays
II.G. 3. Notes
II.G. 4. Manuals
II.G. 5.Other

II.H. Completed Creative Works
II.H.1. Digital Media (e.g., CDs, DVDs)
II.H.2. Datasets

- LJ6-14 aggregation/deformation network: dataset and software (M. Cameron, Y. Forman, S. Sousa Castellanos) Published at https://www.math.umd.edu/~mariakc/software-and-datasets.html

II.H.3. Constructed Projects
II.H.4. Demonstrations
II.H.5. Inventions
II.H.6. Original Plans and Designs
II.H.7. Photography
II.H.8. Software and Applications

- S. Yang, S. Potter, and M. Cameron, C program package "OLIM3DQpotPackage: Ordered Line Integral Methods for Computing the Quasipotential in 3D", https://www.math.umd.edu/~mariakc/olim.html

- M. Cameron and S. Yang, C and MATLAB program package "Qpot4Lorenz63", https://www.math.umd.edu/~mariakc/olim.html

- M. Cameron and D. Dahiya, C program package "OLIM4VAD: Ordered Line Integral Methods for Variable and Anisotropic Diffusion", https://www.math.umd.edu/~mariakc/olim.html

- M. Cameron and D. Dahiya, C program package "OLIMpackage: Ordered Line Integral Methods for Computing the Quasi-potential", https://www.math.umd.edu/~mariakc/olim.html

- B. Nolting, C. Moore, C. Stieha, M. Cameron, K. Abbott, QPot: An R package for stochastic differential equation quasi-potential analysis, cran r-project, Submission date: 10/23/2015, https://www.cran.r-project.org/

II.H.9. Websites
II.H.10. Exhibitions and Installations
II.H.11. Curatorial Practice
II.H.12. Performance or Interpretation – Performing Arts
II.H.13. Direction - Performing Arts
II.H.14. Production - Performing Arts
II.H.15. Costume, Stage, Multimedia, and Theatrical Design
II.H.16. Artistic and Graphic Design
II.H.17. Dramaturgy
II.H.18. Artwork
II.H.19. Choreography
II.H.20. Playwriting, Screenwriting, and Musical Composition
II.H.21. Works of Creative Writing
II.H.22. Performance or Interpretation - Film, Video, and Multimedia
II.H.23. Direction - Film, Video, and Multimedia
II.H.24. Production - Film, Video, and Multimedia
II.H.25. Citations and Reviews
II.H.26. Historical Completed Creative Works (10+ years ago)
II.H.27. Other

II.I Significant Works in Public Media
Specify the following – Title, Publication/Media Name, Contributors, Types (Print, online, broadcast, video, documentary)
II.I.1. Explanatory, Investigative, or Long-Form Journalism
II.I.2. Other Significant Journalism
II.I.3. Commentary/Analysis
II.I.4. Interactive Online Database
II.I.5. Other

II.J. Sponsored Research
List source, title, amount awarded, time period and role (i.e. principal investigator or co-investigator) in reverse chronological order or its inverse. If there are co-investigators, please list these.
II.J.1. Grants

Source	Title	Amount awarded	Time period	Role
AFORSR MURI	*Analysis and synthesis of rare events*	*Applied for $1.1M per Co-PI, actual about is not known yet*	05/01/2020—05/01/2025	Co-PI
MTECH grant, MIPS agreement No 6205	High frequency computational acoustics for audio	$100,000	08/05/2018—08/04/2019	Principal Investigator
NSF Career 1554907	Computational Tools for the Analysis of Large Stochastic Networks	$400,000	06/01/2016-05/31/2021	Principal Investigator
NSF Computational math 1217118	Computational methods for the study of rare events	$287,174	08/01/2012-07/31/2015	Principal Investigator
DARPA YFA	Methods for the study of rare events	$298,755	08/01/2012-07/31/2014	Principal Investigator

II.J.2. Contracts
II.J.3. Other

II.K. Fellowships, Gifts and Other Funded Research
II.K.1. Fellowships

Source	Title	Amount awarded	Time period	Role
Alfred P. Sloan Foundation	Fellowship for Dr. Maria Cameron in Mathematics	$50,000	09/15/2011-09/15/2013	Principal Investigator

II.K.2. Gifts
II.K.3. Other

II.L. Submissions and Works in Progress
List press, journal, or granting agency.
II.L.1. Current Grant Applications
II.L.2. Manuscripts in Preparation
II.L.3. Manuscripts under Review *(indicate status: submitted or revising to resubmit)*

II.L.4. Working Papers in Preparation
II.L.5. Designs in Preparation
II.L.6. Other

II.M. Centers for Research, Scholarship, and Creative Activities
Specify Name of the Center, Description of Center, Collaborators, Start and End Dates.
II.M.1. Centers Established
II.M.2. Centers Directed
II.M.3. Symposia Organized (*through center*)
II.M.4. Other

II.N. Patents
II.N.1. Device
II.N.2. Other

II.O. Other Research/Scholarship/Creative Activities

• Co-organizer (with A. Vladimirsky) of three-session mini-symposium: "Advances in numerical methods for Hamilton-Jacobi-type equations", ICIAM 2019

• Organizer of three-session mini-symposium: "Advances in numerical techniques for the study of rare events", SIAM UQ 2018

• Co-organizer (with Antoine Mellet and Jacob Bedrossian) of the PDE/Applied Math seminar (2011–2012 and 2016–present)

• Organizer of two-session mini-symposium: "Rare Events: Theory, Algorithms, and Applications", SIAM UQ 2016

• Co-organizer (with Jonathan Weare, Jianfeng Lu, Tiejun Li, and Xiang Zhou) of four-session mini-symposium on "*Rare Events in Complex Physical Systems*", International Congress for Industrial and Applied Mathematics (ICIAM), Beijing, 2015

• Co-organizer (with K. Spiliopoulos) of two-session mini-symposium "Metastability: new developments, theory and numerics", SIAM annual meeting 2013, July 8-12, San Diego

• Co-organizer (with P. Dupuis, E. Vanden-Eijnden, B. Berne, and J. Doll)
of workshop "Monte Carlo Methods in the Physical and Biological Sciences", ICERM, Fall 2012

• Co-organizer (with Jonathan Weare) of two-session mini-symposium on "*Challenges and novel techniques in computational chemistry*", International Congress for Industrial and Applied Mathematics (ICIAM), Vancouver, 2011.

III. Teaching, Mentoring and Advising.

III.A. Courses Taught
Include courses taught in the last five years. Indicate approximate enrollments and any unusual formats.

University of Maryland

Semester	Course	Enrollment (est.)

Spring 2020	AMSC 466: Introduction to Numerical Analysis	20	
Spring 2020	AMSC664: Advanced Scientific Computing II	5	
Fall 2019	AMSC 663: Advanced Scientific Computing I	7	
Spring 2019	MATH 858D: Stochastic Methods with Applications (special topic)		22
Spring 2019	STAT 410: Introduction to Probability Theory		17
Spring 2018	AMSC664: Advanced Scientific Computing II		4
Spring 2018	AMSC 661: Scientific Computing II		27
Fall 2017	AMSC 663: Advanced Scientific Computing I		5
Fall 2017	STAT 410: Introduction to Probability Theory		26
Spring 2017	AMSC 661: Scientific Computing II		13
Spring 2017	MATH 858D: Stochastic Methods with Applications (special topic)		18
Fall 2016	AMSC 660: Scientific Computing I		30
Spring 2016	AMSC 661: Scientific Computing II		13
Fall 2015	AMSC 660: Scientific Computing I		25
Spring 2015	MATH 858T: Stochastic Methods with Applications (special topic)		10
Spring 2015	MATH 240: Linear Algebra		25
Fall 2014	MATH 405: Linear Algebra		31
Fall 2014	AMSC 466: Introduction to Numerical Analysis		15
Spring 2014	AMSC 667: Numerical Analysis II (graduate)		5
Fall 2013	AMSC 466: Introduction into Numerical Analysis		17
Fall 2013	MATH 246: Ordinary Differential Equations		145
Spring 2013	AMSC 466: Introduction into Numerical Analysis		27
Spring 2013	MATH 246: Ordinary Differential Equations		220

III.B. Teaching Innovations
III.B.1. Major Programs Established
III.B.2. Education Abroad Established
III.B.3. Software, Applications, Online Education, etc.
III.B.4. Instructional Workshops and Seminars Established
III.B.5. Course or Curriculum Development

- Spring 2015, Spring 2017, Spring 2019: MATH858T and MATH858D "Stochastic Methods with Applications", development of curriculum, lecture notes, and

homework problems (http://www.math.umd.edu/~mariakc/math858t-stochastic-methods.html)

III.B.6. Historical Innovations (10+ years ago)
III.B.7. Other

III.C. Advising: Research or Clinical
This refers to students whose projects the faculty has supervised as adviser, committee chair, or committee member (indicate role). The name of student, academic year(s) involved, and the name of institution if other than UMD should be indicated, as well as placement of the student(s), if the project is completed. List completed work first.
III.C.1. Undergraduate

Name of student	Academic year(s)	Institution	Role	Placement
Sebastian Sousa	Summer 2016	East Carolina University	REU, Research Advisor	University of Colorado, Boulder, PhD program in Physics
Gabriela Studt	Summer 2016	MIT	REU, Research Advisor	n/a
Yakir Forman	Summer 2016	Yeshiva University	REU , Research Advisor	Yale University, PhD program in Mathematics
Daniel Lichy	Summer 2013	UMD	Research Advisor	NIH
Shunxin Jiang	Summer 2009	NYU	Research Advisor	NYU graduate school, Department of Mathematics

III.C.2. Master's
III.C.3. Doctoral

Name of Student	Academic year(s)	Institution/ Program	Role	Placement
Tingyue Gan	Summer 2014 – May 2017	UMD, AMSC	Advisor	Postdoctoral Fellow, UC Berkeley, Consortium for Data Management at Risk
Danielle Middlebrooks	January 2017 — present	UMD, AMSC	Advisor	NIST (in process of getting a position)
Shuo Yang	May 2017 — May 2018	UMD, AMSC	Advisor	n/a
Samuel Potter	May 2017— present	UMD, CS	Co-advisor (w. R. Duraiswami)	n/a
Andrew Luke Evans	September 2018 — present	UMD, AMSC	Advisor	n/a
Manyuan Tao	June 2019— present	UMD, AMSC	Advisor	n/a

| Nicholas Paskal | September 2019 —present | UMD, AMSC | Co-advisor (the primary advisor is S. Cerrai) | n/a |

III.C.4. Post-doctoral

Name of postdoc	Academic year(s)	Institution	Role	Placement
Daisy Dahiya	August 2016 — August 2018	UMD, Math	Postdoctoral mentor	National Institute of Health

III.C.5. Other Research Directions (*K-12 Interactions*)

III.D. Mentorship
III.D.1. Junior Faculty
III.D.2. Other

III.E. Advising: Other than Research Direction
III.E.1. Undergraduate

Academic advising in UMD starting from Spring 2014

III.E.2. Master's
III.E.3. Doctoral
III.E.4. Post-doctoral
III.E.5. Other Advising Activities
(Include advising student groups, special assignments, recruiting, etc.)

III.F. Professional and Extension Education
III.F.1. Professional Programs Established
III.F.2. Major Extension Programs
III.F.3. Workshops
III.F.4. Other

III.G. Other Teaching Activities

Research Interaction Teams (graduate student oriented seminars on a particular topic with mostly local speakers)

Organizers	Title	Semester
M. Cameron and K. Okoudjou	Analysis of complex networks	Fall 2016
M. Cameron and K. Okoudjou	Analysis of complex networks	Spring 2016
M. Cameron, D. Margetis, T. Einstein, P. Patrone	Aspects of statistical mechanics with applications	Spring 2012
M. Cameron, D. Margetis, L. Koralov, S. Cerrai	Stochastic dynamics: models, analysis, and numerics	Spring 2011

IV. Service and Outreach

IV.A. Editorships, Editorial Boards, and Reviewing Activities
Include participation for journals and other learned publications (print and electronic).
IV.A.1. Editorships

IV.A.2. Editorial Boards
IV.A.3. Reviewing Activities for Journals and Presses

Served as a reviewer for the following journals and presses:

Journal or Press	The number of reviews	Year(s)
SIAM MMS	1	2020
SIAM Review	1	2019
The European Physical Journal Plus	1	2020
Communications in Nonlinear Science and Numerical Simulation	1	2019
International Journal of Bifurcation and Chaos	1	2018
European Journal of Applied Mathematics	1	2018
Physica A	1	2018
Communications in Mathematical Sciences	1	2018
Inverse Problems	1	2018
SIAM J Multiscale Modeling and Simulation	1	2018
Advances in Mechanical Engineering	1	2017
Proceedings A	1	2017
Physica D	2	2016, 2020
Engineering Science and Technology, an International Journal	1	2016
SIAM J. Applied Dynamical Systems	2	2015, 2016
Journal of Nonlinear Science	2	2015, 2018
Entropy	1	2013
Springer	1	2012
British Journal of Applied and Computational Science	1	2012
Journal of Computational and Applied Mathematics	1	2010
Geophysics	3	2009, 2010, 2016

IV.A.4. Reviewing Activities for Agencies and Foundations

Agency or Foundations	The number of panels or proposals	Year
NSF	1 panel	2020

NSF	1 panel	2017
DAAD (German Academic Exchange Service)	1 proposal	2016
NSF	2 panels	2016
NSF	1 panel	2015
NSF	1 panel	2014
NSF	2 panels	2013

IV.A.5. Reviewing Activities for Conferences
IV.A.6. Historical Editorships, etc. (10+ years ago)

Conference	Year
SEG	2007

IV.A.7. Other

<u>IV.B. Committees, Professional & Campus Service</u>
IV.B.1. Campus Service – Department

Committee	Academic year
Postdoc Hiring Committee	2019/2020
Postdoc Hiring Committee	2018/2019
Hiring Committee	2017/2018
Hiring Committee	2016/2017
Policy committee	2016/2017
Policy committee	2015/2016
Policy committee	2011/2012
Postdoc hiring committee	2011/2012
Postdoc hiring committee	2012/2013
Postdoc hiring committee	2013/2014
Postdoc hiring committee	2014/2015
Merit pay committee	2013/2014

IV.B.2. Campus Service - College
IV.B.3. Campus Service - University

Committee	Academic year
Summer Research (and Kulkarni) Fellowship Selection Committee	2019/2020
Summer Research (and Kulkarni) Fellowship Selection Committee	2018/2019

IV.B.4. Campus Service - Special Administrative Assignment
IV.B.5. Campus Service - Other
IV.B.6. Offices and Committee Memberships
IV.B.7. Leadership Roles in Meetings and Conferences
IV.B.8. Other Non-University Committees, Memberships, Panels, etc.
IV.B.9. Historical Committees, etc. (10+ years ago)
IV.B.10. Other

IV.C. External Service and Consulting
IV.C.1. Community Engagements, Local, State, National, International
IV.C.2. International Activities
IV.C.3. Corporate and Other Board Memberships
IV.C.4. Entrepreneurial Activities
IV.C.5. Consultancies *(to local, state and federal agencies; companies; organizations)*
IV.C.6. Historical External Service and Consulting (10+ years ago)
IV.C.7. Other

IV.D. Non-Research Presentations
IV.D.1. Outreach Presentations

- Women in Mathematics meeting, UMD, Dec. 2, 2015

IV.D.2 Other

IV.E. Media Contributions
IV.E.1. Internet
IV.E.2. TV
IV.E.3. Radio
IV.E.4. Digital Media
IV.E.5. Print Media
IV.E.6. Blogs
IV.E.7. Feeds
IV.E.8. Other

IV.F Community & Other Service

V. Awards, Honors and Recognition
V.1. Research Fellowships, Prizes and Awards

- The paper "Seismic Velocity Estimation from Time Migration" was selected for the highlights of 2007 by the journal Inverse Problems

- NSF Postdoctoral Fellowship 2007 (I turned it down in order to go to Courant)

- Friedman Prize, UC Berkeley 2007

V.2 Teaching Awards
V.3 Service Awards and Honors

V.4 Recognition in Media
V.5 Other Special Recognition
- Samuel Potter (Ph. D. advisee) received the UMD Summer Research Fellowship (for Summer 2019)
- Tingyue Gan (Ph. D. advisee) received James C. Alexander prize for Graduate Research 2016-2017 and Ruth Davis Fellowship for Mathematics and Physics 2017-2018
- Shunxin Jiang (undergraduate advisee, Courant Institute of Mathematical Sciences, New York University), received Hollis Cooley Prize in Spring 2010.

VI. Other Information