Curriculum Vitae

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Professional Preparation

Ph.D. : University of Maryland at College Park, Condensed Matter Physics (1992)
Dissertation: *"Quantum Monte Carlo simulations of an extended Hubbard Model for high temperature superconductivity"* (Thesis Advisor: C. S. Wang)
M.S. : University of Calcutta, College of Science, Physics (with first class) (1984)
B.S. : Presidency College, Physics (with first class Honors) (1981)

Appointments

Aug 2018 – Present:	Professor, Department of Physics Physics, University of Central Florida
Aug 2006 - Aug 2018	Associate Professor, Department of Physics, University of Central Florida
Aug 2000 - Aug 2006	Assistant Professor, Department of Physics University of Central Florida
July 1998 - July 2000	*Research Assistant Professor*, Michigan State University, East Lansing, MI
June 1994 - June 1998	*Research Associate*, Michigan State University, East Lansing, MI
Aug 1992- May 1994	*Post-Doctoral Fellow*, The Pennsylvania State University, State College, PA
Aug 1984- July 1992	*Teaching and Research Assistant*, University of Maryland, College Park, MD Department of Physics & Center for Superconductivity Research
Fall 2010 - Spring 2011	*On Sabbatical leave from UCF*
Visiting Appointment:	Institute for Physics, Johannes Gutenberg University, Germany Summer 1999, 2003, 2006, 2007, 2008, 2009, 2019 Fall 2010, 2011, 2013, Spring 2011
Visiting Appointment:	Helsinki University of Technology, Helsinki, Finland Summer 2006, 2007,2009, Fall 2010, Spring 2011
Visiting Appointment:	Florida Atlantic University, Department of Physics (Fall 2010 & Spring 2011)

AWARDS & DISTINCTIONS

- Certificate of Recognition & Appreciation, American Chemical Society (ACS) publications peer reviewer (2023)
- Recognition from UCF College of Graduate Studies for mentoring best dissertation in the College of Sciences
- 2021 AIM Impact award from UCF Pegasus Innovation Lab for use of open educational resources (OER)
- Invited visiting positions from Aalto University (formerly Helsinki University of Technology) (2006 - 2018), Espoo, Finland, and from Institut for Physics, Johannes Gutenberg University Mainz, Germany (2006-2021)
- Outstanding mentoring award for dissertation supervision by McKnight Foundation (2009).
- UCF Teaching Incentive Program (TIP) award (2006)
- Distinguished public service award from Lake Highland Preparatory School (2003)

RESEARCH INTERESTS

Soft matter systems including polymers & biopolymers; DNA transport through protein and synthetic nanopores for genomewide mapping; confined biopolymers in nano-channels and in crowded environments; intrinsically disordered proteins implicated in disease; & and engineered new soft materials and synthetic proteins for biomedical applications using Statistical Physics, Simulation & Machine Learning approaches

PROFESSIONAL HIGHLIGHTS

- $2540+$ citations (Google Scholar) of research papers with *h-index* 27, *i-10 index* 50.
- PI & Co-PI in approx 2.0 million (NSF, NASA, NIH, and DARPA) research funding (with $600,000 credit) at UCF.
- International reputation, recognition and leadership for research work on "DNA Transport through Nano-pore"
- Advisory board member of the Soft Matter Association of the America (SMAA).
- Member of the APS Fellowship Committee (invited)
- Member of the American Physical Society (APS)
- Invited speaker at the APS March meeting during focus sessions (2012, 2009, 2007) on DNA Transport through Nanopore and (2024) for intrisically disordered proteins.
- Invited speaker for the CECAM workshop on "*Polymer Translocation through Nanopores*", Mainz, Germany (2012).
- Invited speaker for the workshop on DNA translocation "*Surmounting the insurmountable - pathways to Biological Physics*", POSTECH, S. Korea (2014).
- Session chair and organizer: APS March Meeting various focus sessions on *DNA transport through nano pore*, *Conformation and dynamics of biopolymers* and *Intrinsically Disordered Proteins*
- Co-organizer of CECAM Flagship workshop entitled *Nanopore Translocation and Nanochannel Confined Biopolymers: bridging theory and experiments* September 8, 2021 - September 10, 2021, Trieste, Italy.
- Co-organizer of CECAM Flagship workshop in Lyon entitled *Nanofluidics in physics and biology* July 10, 2023 - July 13, 2023, ENS de Lyon, France,
- Co-organizer of CECAM workshop in Cagliary University, Italy, entitled *Nanopores: from basic sciences to applications* May 19, 2025 - May 22, 2025, Cagliary University, Cagliary, Italy.
- Panel and proposal reviewer for the NSF and other Asian and European agencies
- Reviewer for Nature group of publications (Nature Physics, Nature Nanotechnology, Nature Materials and some others), Physical Review Letters, Physical Review E, Journal of Chemical Physics, Macromolecules, European Physical Journal E, Physical Chemistry Chemical Physics and many other journals.
- External member of the dissertation (PhD) committee: McGill University (Canada), University of Ottawa (Canda), Jawaharlal Nehru Centre for Advanced Scientific Research (India), Indian Institute of Science Education and Research, Mohali (India).
- Dedicated external funding for teaching, mentoring and pedagogy.
- Active in STEM education community & new course development.
- Introduced and coordinated the very first course on Nano Physics at UCF, supported by a NSF-NUE (Nano Undergraduate Education) grant
- Created and taught special topics interdisciplinary courses at UCF: *"Introductory Physics for Life Sciences"*, *"Introduction to Soft Matter Physics"*
- Physics Graduate Coordinator (Graduate Program Director) during Fall 2006 - Fall 2009; the program underwent substantial growth.
- Physics department committees (past and present chair/member): Graduate Admission Committee, Graduate Curriculum & Affairs committee, Physics Candidacy Committee, Physics Colloquium Committee, etc.
- UCF Committee: Research Conflict of Interest Committee (RCOIC) (Appointed by the Provost)
- UCF College of Sciences (COS) committees: Mathematics Chair renewal evaluation committee; COS Promotion and Tenure Committee (Chair), COS committee for graduate studies and research, COS Sabbatical leave committee, COS Teaching Incentive Program (TIP) Committee.

FUNDING HISTORY

Pending Proposals

• Integrated-Multiscale-Predictive-Platform for Protein Ensembles'
Amount - $1,698,818 USD
Sponsoring Agency: The Defense Advanced Research Projects Agency (DARPA)
PI: Aniket Bhattacharya; Co-PIs (Charles Brooks-III (Umich), Y. Hong (Brandies), S. Deshmukh (VT), A. Ramamoorthy (FSU)
Project period: 01/05/2026-01/04/2027

Awarded Proposals

• *"Physics informed Machine Learning for Intrinsically disordered proteins"*
Sponsoring Agency: DARPA Biotechnology Office
Amount $100, 000
PI - Aniket Bhattacharya, George Atia (co-PI) and Shahana Ibrahim (co-PI)
Project Period: 12/06/2024 – 06/06/2025.

• "DNA barcoding via multi-scan and step control in dual-pore tug-of-war" - $126,522
Sponsoring Agency: NIH-(Subcontract from McGill University)
PI: Aniket Bhattacharya Project period: 09/01/2020 - 05/31/2024

• "The Bouncing Barrier Problem in Planet Formation"
Sponsoring Agency: Florida Space Grant Consortium
PIs: Aniket Bhattacharya (80%) & Joshua Colwell (20%)
Project period: 08/15/2017 - 08/14/2020; 80% ($19,822.00) of total amount $24,778.00

• "Mitigation of Air Leaks in LH2 Tanks" - $15,250.00
Agency: National Space Grant Foundation: 01/05/2015-05/31/2016
PI: Aniket Bhattacharya

• "Mitigation of Air Leaks in LH2 Tanks" - $11,250.00
Agency: National Space Grant Foundation: 01/12/2015-04/15/2015
PI: Aniket Bhattacharya

• "Mitigation of Air Leaks in LH2 Tanks" - $2,250.00
Agency: National Space Grant Foundation: 01/12/2015-04/15/2015
PI: Aniket Bhattacharya

• "Phase Coexistence and Transport of Fluid in Porous Media" - $3,675.00
Florida Space Institute/Florida Space Grant Consortium (FSGC): 09/01/2014 to 05/07/2015
PI: Aniket Bhattacharya

• UCF College of Science SEED grant - $10,000 (May 2012-Dec 2013)
"Challenges in Computational Statistical Mechanics"
PI: Aniket Bhattacharya

• *"Electroless Metalization onto Polymeric Surfaces: Synthesis, Analysis, and Modeling for Achieving Controlled Nanoscale Morphologies"*,
The National Science Foundation (NSF-CHEM): $504,854.00 (July 2008 - June 2011)
Co-PI (25%) with Stephen Kuebler and Prof. Helge Heinrich

• *"Self-Assembly of Magnetic Nanostructures and Related Enabling Technologies"*
The National Science Foundation (NSF-NIRT): $1200,000.00 (August 2001 - July 2006)
Co-PI (25%) with Weili Luo, and K. Belfield.

• Student Fellowship

- Los Alamos National Laboratory Summer Research Fellowship $12,000.00
  Awarded to my PhD student Swarnadeep Seth (June 2019 - August 2019).
- "A random walk model of social distancing to mitigate COVID-19 spread" $2000
  A Summer 2020 Research Fellowship awarded to Ronit Agarwala to conduct research on COVID-19 spread.
- "A Simple Two Dimensional Model of Cell Migration in an Extracellular Matrix Environment" STEM Fellowship $3000 - Awarded to Biomedical Science undergraduate Mohammad Usman - Spring 2018

• Foreign research collaboration related travel support and local expenses:
Finnish Academy (local host Prof. Tapio Ala-Nissila) $\sim$$ 40,000.00 (7-8 trips)
Deutsche Forschungsgemeinschaft (local host Prof. Binder)$\sim$$ 30,000.00 (9-10 trips)
(Listed as a Foreign Collaboration in Prof. Binder's and Prof. Ala-Nissila's grant)

• UCF Start up grant: $70,000.00 (August 2000-June 2002)

• UCF Presidential matching fund for major equipment: $5000.00 (2001)

Funding related to teaching, pedagogy and course development

• "Introductory Physics for Life Sciences" $17,000.00‡
Agency: Helmsley Charitable Trust‡: 09/06/2016-10/15/2016
PI: Aniket Bhattacharya Co-PIs: Lawrence von Kalm (UCF-Biology), Elena Flitsiyan (UCF-Physics), Gauri Pradhan (USF - Physics), and Gerald Woods (USF - Physics).

• "Helmsley Faculty Learning Community" $1000.00‡
Agency: Helmsley Charitable Trust‡: 9/15/2016-10/15/2016

‡ *Part of $500,000 planning grant awarded to Florida Consortium (FLC) of Metropolitan Universities (UCF, USF, and FIU) from the Helmsley Charitable Trust*

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• UCF Undergraduate Teaching Equipment Grant: $3635.00 (2005).

• *"An interdisciplinary Undergraduate program in Nanoscience and Nano-Engineering"*
The National Science Foundation(NSF-NUE): $100,000.00 (July 2003 - December 2004)
Co-PI (20%) with Sudipta Seal, Beverly Regezinsgky, Craig Sider, and Elliot Vittes.

US Patent

2. United States Patent: (Awarded)
   Patent No.: US 12,049,663B2
   Date of Patent: July 30, 2024
   Inventors: Aniket Bhattacharya, Orlando, FL (US); Swarnadeep Seth, Orlando, FL (US)
   Title: *Methods of Determining DNA Barcodes for efficient species categorization using Nanopore Translocation*

Applicant: University of Central Florida Research Foundation, Inc., Orlando, FL (US)

1. United States Patent: (Submitted)
   United States Patent and Trademark Office Application number: 63/657,206
   Date Filed: June 07, 2024
   Inventors: Aniket Bhattacharya, Orlando, FL (US); Swarnadeep Seth, Orlando, FL (US)
   Title: *Techniques for Predicting the Effect of Mutations in Intrinsically Disordered Proteins (IDPs)*
   Applicant: University of Central Florida Research Foundation, Inc., Orlando, FL (US)

REFEREED PUBLICATIONS

71. Diego Linares Gonzalez, Shahana Ibrahim, Swarnadeep Seth, George Atia, and Aniket Bhattacharya, *"Prediction of physical characteristics of disordered proteins using molecular simulation and physics-informed multiple machine learning strategies"*, **Biomacromolecules 2025, 26, 11, 7595–7604**; https://doi.org/10.1021/acs.biomac.5c01118

70. Swarnadeep Seth and Aniket Bhattacharya, *"Accelerated Missense Mutation Identification in Intrinsically Disordered Proteins Using Deep Learning"*, **Biomacromolecules 2025, 26, 4, 2106–2115**, https://doi.org/10.1021/acs.biomac.4c01124

69. Swarnadeep Seth, Brandon Stine, and Aniket Bhattacharya, *"Fine structures of intrinsically disordered proteins"*, **J. Chem. Phys. 160, 014902 (2024)**, https://doi.org/10.1063/5.0176306

68. Jacob Bair, Swarnadeep Seth, and Aniket Bhattacharya, *"Universality in conformations and transverse fluctuations of a semi-flexible polymer in a crowded environment"*, **J. Chem. Phys. 158, 204902 (2023)**. https://doi.org/10.1063/5.0143814

67. Swarnadeep Seth, Arthur Rand, Walter Reisner, William B. Dunbar, Robert Sladek, and Aniket Bhattacharya, *"Discriminating protein tags on dsDNA constructs using a dual Nanopore device"*, **Sci Rep 12, 11305 (2022)**. https://doi.org/10.1038/s41598-022-14609-9

66. Swarnadeep Seth and Aniket Bhattacharya *"How capture affects polymer translocation in a solitary nanopore*, **J. Chem. Phys. 156, 244902 (2022)**. https://doi.org/10.1063/5.0094221

65. Jan Rothorl, Sarah Wetterman, Peter Virnau, and Aniket Bhattacharya
   "Knot formation of dsDNA pushed inside a nanochannel"
   Sci Rep 12, 5342 (2022). https://doi.org/10.1038/s41598-022-09242-5

64. Swarnadeep Seth and Aniket Bhattacharya, *"DNA Barcodes using a Double Nanopore System"*
   Sci Rep 11, 9799 (2021). https://doi.org/10.1038/s41598-021-89017-6

63. Swarnadeep Seth and Aniket Bhattacharya, *"DNA Barcodes using a Cylindrical Nanopore"*
   RSC Adv., 11, 20781 (2021) 11, 20781. https://doi.org/10.1039/D1RA00349F

62. Swarnadeep Seth and Aniket Bhattacharya, *"Polymer escape through a three dimensional Double-Nanopore System"*, **J. Chem. Phys. 153, 104901 (2020)**. https://doi.org/10.1063/5.0015310

61. Aniket Bhattacharya and Swarnadeep Seth *"Tug of war in a double-nanopore system"*, **Phys. Rev. E 101, 052407 (2020)**. https://doi.org/10.1103/PhysRevE.101.052407

60. Simon Bernier, Aiqun Huan, Walter Reisner, and Aniket Bhattacharya, *"Evolution of Nested Folding States in Compression of a Strongly Confined Semiflexible Chain"*
   Macromolecules 51 (11), 4012-4022 (2018).https://doi.org/10.1021/acs.macromol.7b02748

59. Ramesh Adhikari and Aniket Bhattacharya *"Effect of solvent viscosity on driven translocation of a semi-flexible chain though a nano-pore"*
Europhysics Letters 121, 68006 (2018). doi:10.1209/0295-5075/121/68006

58. Aiqun Huang, Walter Reisner, and Aniket Bhattacharya,
"Dynamics of DNA Squeezed inside a Nanochannel via a Sliding Gasket",
Polymers 8, 352 (2016) (invited). https://doi.org/10.3390/polym8100352

57. Ramesh Adhikari and Aniket Bhattacharya,
"Translocation of a semiflexible polymer through a nanopore in presence of attractive binding particles", **Phys. Rev. E 81, 032711 (2015)**.

56. Aiqun Huang, H.-P Hsu, Aniket Bhattacharya, and Kurt Binder,
"Semiflexible macromolecules in quasi-one-dimensional confinement: Discrete versus continuous bond angles", **J. Chem. Phys. 143, 243102 (2015) (invited)**.

55. Ramesh Adhikari and Aniket Bhattacharya,
"Deconvoluting chain heterogeneities from driven translocation through a nano-pore"
Euro Phys. Lett. 109, 38001 (2015).

54. Aiqun Huang, Aniket Bhattacharya, and Kurt Binder,
"Conformations, Transverse Fluctuations and Crossover Dynamics of a Semi-Flexible Chain in Two Dimensions", **J. Chem. Phys. 140, 214902 (2014)**.

53. Aiqun Huang and Aniket Bhattacharya,
"DNA confined in a two-dimensional strip geometry"
Euro Phys. Lett. 106, 18004 (2014).

52. Aiqun Huang, Ramesh Adhikari, Aniket Bhattacharya, and Kurt Binder,
"Universal monomer dynamics of a two dimensional semiflexible chain",
Euro Phys. Lett. 105, 18002 (2014).

51. Christopher J. Clukay, Christopher N. Grabill, Michelle A. Hettinger, Aniruddha Dutta, Daniel J. Freppon, Anthony Robledo, Helge Heinrich, Aniket Bhattacharya, Stephen M. Kuebler, *"Controlling formation of gold nanoparticles generated in situ at a polymeric surface"*,
Applied Surface Science 292, 128 (2013).

50. Ramesh Adhikari and Aniket Bhattacharya,
"Driven translocation of a semi-flexible Chain through a nanopore: A Brownian dynamics simulation study in two dimensions", **J. Chem. Phys. 138, 204909 (2013).**

49. A. Dutta, C. J. Clukay, C. N. Grabill, D. J. Freppon, A. Bhattacharya, S. M. Kuebler, and H. Heinrich, *"Nanoscale Characterization of gold nanoparticles created by in situ reduction at a polymeric surface"*, **Journal of Microscopy, 251, 27 (2013)**.

48. Timo Ikonen, Aniket Bhattacharya, Tapio Ala-Nissila, and Wokyung Sung,
"Influence of pore friction on the universal aspects of driven polymer translocation"
Euro Phys. Lett. 103 38001 (2013).

47. Aniket Bhattacharya,
"Translocation Dynamics of a Semi-flexible Chain Under a Bias: Comparison with Tension Propagation Theory, **Polymer Science Series C 55, 1 (2013). (invited)**

46. Timo Ikonen, Aniket Bhattacharya, Tapio Ala-Nissila, and Wokyung Sung,
"Influence of non-universal effects on dynamical scaling in driven polymer translocation",
J. Chem. Phys. 137 085101 (2012).

45. Timo Ikonen, Aniket Bhattacharya, Tapio Ala-Nissila, and Wokyung Sung,
"Unifying model of driven polymer translocation",
Phys. Rev. E 85, 051803 (2012).

44. Anthony Robledo, Christopher N. Grabill, Stephen M. Kuebler, Aniruddha Dutta, Helge Heinrich, and Aniket Bhattacharya,
"Morphologies from slippery ballistic deposition model: A bottom-up approach for nanofabrication",
Phys. Rev. E 83, 051604 (2011).

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"Polymer Translocation induced by a Bad Solvent",
Phys. Rev. E. 83, 011914 (2011).

42. Aniket Bhattacharya and Kurt Binder,
"Out-of-equilibrium aspects of a translocating chain through a nanopore",
Phys. Rev. E 81, 041804 (2010).

41. Aniket Bhattacharya, Heath Morrison, Kaifu Luo, Tapio Ala-Nissila, See-Chen Ying, Andrey Milchev, and Kurt Binder,
"Scaling of Driven Polymer Translocation through a nanopore",
Eur. Phys. J. E 29, 423 (2009).

40. Kaifu Luo, Tapio Ala-Nissila, See-chen Ying, Aniket Bhattacharya,
"Translocation Dynamics with Attractive Nanopore-Polymer Interactions",
Phys. Rev. E 78, 061918 (2008).

39. Kaifu Luo, Tapio Ala-Nissila, See-chen Ying, Aniket Bhattacharya,
"Dynamics of DNA translocation through an attractive nanopore",
Phys. Rev. E 78, 061911 (2008).

38. Kaifu Luo, Santtu T. T. Ollila, Ilkka Huopaniemi, Tapio Ala-Nissila, Pawel Pomorski, Mikko Karttunen, See-Chen Ying, and Aniket Bhattacharya
"Dynamical Scaling Exponents for Polymer Translocation through a Nanopore"
Phys. Rev. E 78, 050901(R) (2008).

37. Kaifu Luo, Tapio Ala-Nissila, S-C Ying, and Aniket Bhattacharya,
"Sequence dependence of DNA translocation thorough a nanopore"
Phys. Rev. Lett. 100, 1058101 (2008).

36. Kaifu Luo, Tapio Ala-Nissila, S-C Ying, and Aniket Bhattacharya,
"Influence of polymer-pore interactions on translocation",
Phys. Rev. Lett. 99, 148102 (2007).

35. George Bourov and Aniket Bhattacharya,
"Effect of hydrophilicity and packing constraints in phase diagram of amphiphiles: An off-lattice Gibbs ensemble Monte Carlo approach"
J. Chem. Phys. 127, 244905 (2007).

34. K. Luo, T. Ala-Nissila, S-C Ying, and Aniket Bhattacharya,
"Heteropolymer Translocation through Nanopore",
J. Chem. Phys. 126, 14501 (2007).

33. Monojoy Goswami, Sanat K. Kumar, Aniket Bhattacharya, and Jack F. Douglas,
"Computer simulations of ionomer self-assembly and dynamics"
Macromolecules 40, 4113 (2007).

32. Wayne Finger, J. Kapat, and Aniket Bhattacharya,
"Molecular Dynamics Simulation of Absorbent Layer effect on Tangential Momentum Accommodation Coefficient",
J. Fluids. Eng. 129, 31 (2006).

31. Vincent Maycock and Aniket Bhattacharya,
"Effect of head-tail ratio and range of head-head interaction in Amphiphilic Self-assembly",
Euro. Phys. J. E 20, 201 (2006).

30. Geuorgui Bourov and Aniket Bhattacharya,
"Brownian dynamics of mixed surfactant micelles",
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29. A. Milchev, K. Binder, and Aniket Bhattacharya,
"Polymer translocation through a nanopore induced by adsorption: Monte Carlo simulation of a coarse-grained model",
J. Chem. Phys. 121, 6042 (2004).

28. Geuorgui Bourov and Aniket Bhattacharya,
"Brownian Dynamics Simulation Study of Self-assembly of Amphiphiles with Large Hydrophilic Head",
J. Chem. Phys. 122, 044702 (2005).

27. Aniket Bhattacharya,
"Conformation and drift of a telechelic chain in porous media",
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26. M.D. Johnson, X. Duan, Brett Riley, Aniket Bhattacharya, and Weili Luo,
"Thermodynamic Model of Electric-Field-Induced Pattern Formation in Binary Dielectric Fluids",
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25. Geuorgui Bourov and Aniket Bhattacharya,
"The role of Geometric Constraints in Amphiphilic Self-Assembly: a Brownian Dynamics Study",
J. Chem. Phys. 119, 9219 (2003).

24. Aniket Bhattacharya and Andrey Milchev,
"Electrophoresis of an end-labeled polymer chain: a molecular dynamics study",
Phys. Rev. E 66, 041806 (2002).

23. Andrey Milchev and Aniket Bhattacharya,
"Polymer depletion interaction between a colloid particle and a wall",
J. Chem. Phys. 117, 5415 (2002).

22. Brett Riley, Aniket Bhattacharya, Michael Johnson, Xiaodong Duan, and Weili Luo,
"Electric Field Induced Lamellar Structures in Magnetic Fluids: A 2D diffusion model",
Int. Journal Mod. Phys. B 16, 2341 (2002).

21. Aniket Bhattacharya and S. D. Mahanti,
"Critical Micelle Concentration in three dimensional lattice models of amphiphiles",
Letter to the Editor, **J. Phys.: Condens. Matter 13, L861 (2001)**.

20. Aniket Bhattacharya and S. D. Mahanti,
"Self-Assembly of ionic surfactants and formation of mesostructures",
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"Formation of block copolymer micelles in solution: A Monte Carlo study of chain length dependence",
Macromolecules 34, 1881 (2001).

18. Aniket Bhattacharya & S. D. Mahanti,
"Energy and size fluctuations of amphiphilic aggregates in a lattice model",
J. Phys.: Condens. Matter 12, 6141 (2000).

17. Hong Liu, Aniket Bhattacharya, and Amitabha Chakrabarti,
"Network Domain Structure in Phase Separating Polymer Solutions",
J. Chem. Phys. 111, 11183 (1999).

16. Hong Liu, Aniket Bhattacharya, and Amitabha Chakrabarti,
"Early Stage Dewetting of Microscopically Thin Polymer Films: A Molecular Dynamic Study",
J. Chem. Phys. 109, 8607 (1998).

15. Aniket Bhattacharya, S. D. Mahanti, and Amitabha Chakrabarti,
"Self-Assembly of Neutral and Ionic Surfactants: An Off-Lattice Monte Carlo Approach",
J. Chem. Phys. 108, 10281 (1998).

14. Aniket Bhattacharya, S. D. Mahanti, and Amitabha Chakrabarti,
"Network-like Pattern Formation in Phase Separating Polymer Solutions: a Molecular Dynamics Study",
Phys. Rev. Lett. 80, 333 (1998).

13. Aniket Bhattacharya and S. D. Mahanti,
"Spin echo diffraction in disordered porous media with single length scales",
Phys. Rev. B 55, 11230 (1997).

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"Dynamics of melting Argon clusters",
Phys. Rev. E 55, 322 (1997).

11. Aniket Bhattacharya, Madan Rao, and A. Chakrabarti,
"Kinetics of phase ordering of nematic liquid crystals in a confined geometry",
Phys. Rev. E 53, 4899 (1996).

10. Aniket Bhattacharya, S. D. Mahanti, and A. Chakrabarti,
"Diffusion and magnetic relaxation in model porous media",
Phys. Rev. B 53, 11495 (1996).

9. Aniket Bhattacharya, B. Y. Chen & S. D. Mahanti,
"Structural dynamics of clusters near melting",
Rapid Communication, Phys. Rev. E 53, R33 (1996).

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"Optimal path and universality",
J. Phys. A 28, 5693 (1995).

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"The interaction potential of a symmetric helium trimer",
J. Chem. Phys. 100, 8999 (1994).

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"Random walk for interacting particles on a Sierpinski Gasket",
Phys. Rev. E 49, 4946 (1994).

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"Exact quantum Monte Carlo calculation of the H-He interaction potential",
Phys. Rev. A 49, 2441 (1994).

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"Phase separation in binary mixtures confined in a strip geometry",
Phys. Rev. E 49, 524 (1994).

3. Aniket Bhattacharya and C. S. Wang,
"Spin and charge fluctuations in an extended Hubbard model of oxide superconductors",
Phys. Rev. B 48, 13949 (1993).

2. 295 Aniket Bhattacharya and C. S. Wang,
"Generalized flux phases, Hubbard versus $t-J$ model",
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"Magnetic interactions in High-T_c Superconductors",
Journal de Physique 49, 2243 (1988).

REFEREED CONFERENCE PROCEEDINGS:

9. Aniket Bhattacharya, "Scaling Theory for Driven Polymer Translocation through a Double Nanopore" 2022 J. Phys.: Conf. Ser. 2241 012002 (invited), doi:10.1088/1742-6596/2241/1/012002
33rd Annual CSP Workshop: *Recent Development in Computer Simulation Studies in Condensed Matter Physics* (CSP 2020) 17-21 February, 2020 Athens, Georgia, USA.

8. Aniket Bhattacharya, "Some aspects of a two-pore translocation problem" 2021 J. Phys.: Conf. Ser. 2122 012003 (invited), doi:10.1088/1742-6596/2122/1/012003
32nd Annual CSP Workshop: *Recent Development in Computer Simulation Studies in Condensed Matter Physics* (CSP 2019) 18-22 February, 2019 Athens, Georgia, USA.

7. A. Krenn, S. Starr, R. Youngquist, M. Nurge, J. Sass, J. Fesmire, C. Cariker, and A. Bhattacharya, "The safe removal of frozen air from the annulus of an LH2 storage tank", *2015 Cryogenic Engineering Conference and International Cryogenic Materials Conference*,Tucson, Arizona, June 28 - July 02, **2015**.

6. Aniket Bhattacharya,
"How local factors affect the "universal"scaling exponents of forced polymer translocation through a nano-pore", (invited) *Computer Simulation Studies in Condensed Matter Physics XXII* , Eds. D. P. Landau, S. P. Lewis, and H. B. Schuttler, Elsevier, **2009**.

5. Aniket Bhattacharya and Geuorgui Bourov,
"Effect of packing parameter on amphiphilic self-assembly: a Brownian dynamics study", (invited) *Computer Simulation Studies in Condensed Matter Physics XVI* , Eds. D. P. Landau, S. P. Lewis, and H. B. Schuttler (Springer Verlag, Heidelberg, Berlin, **2003**).

4. Aniket Bhattacharya and S. D. Mahanti,
"Self-Assembly of Amphiphiles: An Overview of Lattice and Continuum Model Simulations",
Proceedings of the Science and Technology of the Nanostructured Materials" held in Puri, India, January 4-8, **2001**, Nova Publisher, U.S.A.

3. S. D. Mahanti and Aniket Bhattacharya,
"Melting and Dynamics of Clusters",
Proceedings of the International Conference On Clusters And Nanostructured Materials, held in Puri, India, December,1994 - January **1995**, ed. P. Jena and S. N. Behera (Nova Science Publishers).

2. Aniket Bhattacharya and S. D. Mahanti,
   "Diffusion and magnetic relaxation in computer generated model porous media",
   Proceedings of the Access in Nanoporous Media Symposium, held in Lansing, Michigan, June 7-9, **1995**, ed. T. J. Pinnavaia and M. F. Thorpe (Plenum).

1. B. Y. Chen, W. Hammond, A. Bhattacharya, S. D. Mahanti, and M. Youssoff,
   "Rare Gas Clusters Inside K-L Zeolite Cage", *International Symposium on the science and technology of atomically engineered materials* held in Richmond, Virginia, **1995**.

Book Chapter

1. Swarnadeep Seth and Aniket Bhattacharya, *DNA barcodes using a dual nanopore device*, *DNA Barcoding Methods and Protocols; Methods in Molecular Biology 2744*, editor Robert Desalle, Humana Press (2024); https://doi.org/10.1007/978-1-0716-3581-0 (2023).

RESEARCH COLLABORATORS

Late Prof. Kurt Binder, Institut for Physics, Johannes Gutenberg University, Germany
Prof. Andrey Milchev, Bulgarian Academy of Sciences, Bulgaria
Prof. Tapio Ala-Nissila, Dept. of Applied Physics, Aalto University, Espoo, Finland
Prof. See-chen Ying, Physics Department, Brown University, Providence, RI, USA
Prof. Wokyung Sung, Dept. of Physics, POSTECH & Asia Pacific Center, Pohang, South Korea
Prof. Mikko Karttunen, The University of Western Ontario, Canada
Prof. Sanat Kumar, Columbia University, New York, USA
Prof. Walter Reisner, McGill University, Canada
Prof. Robert Sladek, McGill University, Canada
Prof. Peter Virnau, Institute for Physics, Johannes Gutenberg University, Germany
Dr. H.-P Hsu, Institut for Physics, Johannes Gutenberg University, Germany
Prof. William Dunbar, Nooma Bio Inc., Santa Cruz, CA, USA
Dr. Arthur Rand, Oxford Nanopore, UK
Prof. Kaifu Luo, University of Science and Technology of China, Hefei, P. R. China
Dr. Ramesh Adhikari, The University of Texas at Austin, USA
Dr. Swarnadeep Seth, Virginia Polytechnic Institute and State University, USA

RESEARCH SUPERVISION & MENTORING

Current Graduate Advisees:

Benedicta Benyeogor:Working on Intrisically disordered proteins using coarse-grained models and molecular simulation. for the poster presented in UCF's showcase of graduate research

Past Undergraduate Advisees:

Brandon Stine: coauthor in a publication and senior (triple major) at UCF): Worked on intrinsically disordered proteins using coarse-grained model
Jacob Bair (a National Merit Scholar) : coauthor in a publication, worked on diffusion and transverse fluctuations of a DNA in a crowded environment (currently a physics graduate student at Brown University)
Joshua Ashby (a minority student): Worked on protein translocation through a nanopore (currently a physics graduate student at University of Kansas)
Theodore Cox: Working on cluster coalescence (joint project with Prof. Josh Colwell)
Annsophia Mompoint: Analyzing experimental data on cancer invasion under my supervision (co-supervised by Prof. Andl).
Sabrina Scime and Rachel Scime: Analyzing and reformatting the data obtained from Prof. Andl's lab that will help us to understand the underlying pattern in the fibroblasts.
Katrina Cook: Analyzing data for confined DNA in nanochannels
Mohammad Usman: RAMP Scholar: Burnett Honors College Student making simulation models of cell migration in presence of obstacles.
Sohang Gandhi: Worked on lattice model of self-assembly
Sergio Tafur: Developed message passing instructions(MPI) for efficient use of my computing cluster.
Heath Morrison: Worked on modeling DNA transport through protein nanopore. Published a 2nd author paper (reference [41] in the publication list)
John Heys: UG student involved in the NSF sponsored research on electroless metal deposition on polymeric surfaces.
Anthony Robledo: UG student involved in the NSF sponsored research on electroless metal deposition on polymeric surfaces. Co-authored two papers (References [44] (1st author) and [51] in the publication list)
Nathaniel Tukdarian: Junior, Physics Major at UCF, Worked on diffusion in random potential using theory and computer simulation studies.
Peter Smucz - Worked on DNA translocation through double nanopores
Ronit Agarwala - Worked on "A random walk model of social distancing to mitigate COVID-19 spread"

Past Graduate Advisees completed PhD/MS:

- **Swarnadeep Seth**: Awarded PhD during Spring 2024 Commencement. Employed as a Post-Doctoral Research Scholar at the Chemical Engineering Department, Virginia Tech, Blacksburg, VA, USA.
- **Aiqun Huang**: Awarded PhD during Spring 2016 Commencement. Employed as a Senior Quantitative Research Scientist at Quantlab Group. Dissertation topic: *"Conformations and Dynamics of Semi-flexible Polymers"*
- **Ramesh Adhikari**: Awarded Ph. D during fall 2015, First employed as a Research Associate in the Materials Research Laboratory at the University of Texas at Austin and now an industrial scientist. Dissertation topic: *"Translocation of a semiflexible polymer through a Nano-pore"*
- **Angela Gray Krenn**: Awarded MS during fall 2015, Employed as a research scientist in Applied Physics Lab at the Kennedy Space Center.
- **Philip T. Metzger**: Awarded Ph. D. during Spring 2005 Commencement.
  Formerly at Kennedy Space Center,, currently employed as a research scientist at UCF.
  Dissertation topic: *"Deriving Density of States for Granular Contact Forces"*

- **George Bourov**: Awarded Ph. D. during Summer 2005 Commencement.
  Employed as a visiting Asst. Professor with Embry Riddle University, Daytona Beach, Florida
  Dissertation topic: *"Simulation studies of self-assembly and phase diagram of amphiphilic molecules"*

Other Past Graduate Advisees

Vincent Maycock, Christopher J. Lorscher, Abdelillah Y. Ouazzani, Coleman Cariker, Tyler Campbell, Eric Switzer

Foreign student co-supervised

Timo Ikonen: Timo, my collaborator Prof. Ala Nissila's student worked with me on a common problem. Employed as a staff scientist at VTT Technical Research Center, Espoo, Finland.

High school advisee:

Amrit Vignesh (currently at Princeton); Mark White (went to Dartmouth College)

Research Experiences for the Undergraduates(REU) advisees:

Gayle Tanner, Kirstin Purdy, Daniel Bridges

SERVICES:

- **Physics Graduate Coordinator (program director)** Fall 2006 - Fall 2009
  During these 3 years the physics graduate program at UCF underwent substantial growth both in terms of number of graduate students (more than double), quality, and diversity.

- **Physics Committee Chair:**
  Physics Lecturer Search Committee (FA 2024)
  Graduate Curriculum and Affairs committee (Fall 2016 - present);
  Graduate Admission Committee (Fall 2006 - Fall 2008)
  Graduate Candidacy Examination Committee (2002-2006)
  Physics Colloquium Committee (2002-2003)
  Physics Curriculum Committee (2014-15)

- **Physics Committee Member (Department):**
  Physics Undergraduate Committee (2012-2015);
  Physics Nano-Bio search committee (2009);
  Graduate Curriculum and Affairs committee (Fall 2007 - 2009);
  Graduate Admission committee (Fall 2006 - 2009,2012,2013,2014);
  New faculty search Committee (2002 & 2003);
  Graduate Committee (2000-2005);
  Physics Colloquium Committee (2001-2004);
  Physics Building Committee (2004-2005);
  PHY2048/PHY2049 Text Book review Committee (Spring 2005);
  Computer & Technology Committee (2002-2006);
  Library Liaison (2001-2003);
  Physics Web-master (2004-2005).

- **College of Sciences (COS) Committee Chair:**
  COS Tenure and Promotion Committee (2023-2024)

- **College of Sciences (COS) Committee Member:**
  COS Tenure and Promotion Committee (2022-2023)

Mathematics 5 Year Chair Review Committee (2019)
COS committee for graduate studies and research (2006-2009, 2016-present)
COS Research Committee: Excellence in Research Award 2017
COS Sabbatical Committee (2013-2014, 2014-2015);
COS TIP (Teaching Incentive program) committee (2007,2008).

- **Service to the University:**
  Research Conflict of Interest Committee (RCOIC) (member - appointed by the Provost)

REVIEWER OF SCIENTIFIC JOURNALS

Nature Physics, Nature Nanotechnology, Nature Materials, Proceedings of the National Academy of Sciences (PNAS), USA, Soft Matter, Physical Review Letters, Physical Review E, Journal of Chemical Physics, Journal of Physics: Condensed Matter, Euro Physics Letters (EPL), European Journal of Physics E, Langmuir, Macromolecules, Physical Chemistry-Chemical Physics (PCCP) and other journals.

REVIEWER OF SCIENTIFIC PROPOSALS:

Panelist and regular reviewer to the National Science Foundation proposals; Fundamental Onderzoek der Materie(FOM), The Netherlands; U.S. Civilian Research & Development Foundation (CRDF); Israel National Science Foundation; The National University of Singapore

SEMINARS & INVITED TALKS

58. *Exploring Natural and Synthetic Disordered Proteins - using a combination of Molecular dynamics & Deep Learning strategies*, Joint USA-European Symposium on Materials Simulations and Experiments using Machine Learning & Exascale Computing Spetses Island, Greece, June 22-27, 2025.

57. *Coarse-grained models of intrinsically disordered proteins for nanopore translocation*, CECAM workshop: "Nanopores: from basic sciences to applications" May 19, 2025 - May 22, 2025, Cagliari University, Sardinia, Italy.

56. *Probing dynamical heterogeneities, fine structures, and missense mutations in Intrinsically Disordered Proteins using Molecular dynamics, MC simulations, and Deep Learning*, invited talk at the APS Global Physics Summit, March 16 -21, 2025, Anaheim, CA, USA, Session: MAR-X49, Anaheim Convention Center, Molecular Dynamics and Deep Learning for Materials Including TMDC & Oxide Moire Structures: IV, Sponsors: DCOMP, DPOLY, DBIO, DMT

55. *Physics informed Machine Learning for Intrinsically Disordered Proteins to explore Bimolecular Condensates*, Invited Pitch at the AI BTO Pitch Day event in Washington, DC on December 5 & 6, 2024

54. *" Brownian dynamics simulation of genome alignment"* Seminar, Nooma Bio, Inc. CA, USA (February 2022).

53. *"Characteristics of flossing a DNA through a nanopore device"* Colloquium, Department of Physics, Florida International University, Miami, Florida, USA, October 6, 2021.

52. *"Some characteristics of biopolymer translocation through a solitary and a dual nanopore device: results from simulation studies"*, Talk presented at a CECAM workshop entitled *Nanopore Translocation and Nanochannel Confined Biopolymers: bridging theory and experiments*, September 8, 2021 - September 10, 2021, SISSA, Trieste, Italy.

51. *"DNA folds inside a Nanochannel: scaling and non-equilibrium dynamics" Talk presented at SISSA, Trieste, Italy, June 2019.*

50. "DNA folds and nonequilibrium dynamics inside a Nanochannel" Talk presented at Institute for Physics, Johannes Gutenberg University, Mainz, Germany, June 2019.

49. *"Some aspects of a two-pore translocation problem"*, Talk presented at the 32nd Annual CSP workshop on Recent Developments in Computer Simulation Studies in Condensed Matter Physics February 18 - 22, 2019, organized by David Landau and Steven Lewis

48. *"DNA folds and dynamics squeezed inside a nano-channel with a sliding gasket"*, Center for Nonlinear Studies, Los Alamos National Laboratory, New Mexico, June 4, 2018

47. *"DNA conformations and dynamics squeezed inside a nano-channel with a sliding gasket"*, Colloquium, Department of Mechanical Engineering, Northwestwern University, Evanston, May 01, 2017.

46. *"DNA folds and non-equilibrium dynamics inside a Nanochannel"*
Florida Chapter of the American Chemical Society, May 05 - 07 (2016),

45. *"DNA Dynamics, Melting, and Barcodes inside a Nanochannel"*,
Condensed Matter Seminar, Physics Department, McGill University, Canada, Oct 22, 2015.

44. *"Characteristics of heteropolymer translocation through a nanopore"*,
Surmounting the insurmountable - Pathways of Biological Physics: An international Conference, Asia Pacific Center for Theoretical Physics and POSTECH, South Korea, August 28 - August 30 (2014).

43. *"Universal monomer dynamics of a two dimensional semi-flexible chain"*,
Institut for Physics, Johannes Gutenberg University, Germany, October, 2013.

42. *"Emerging Physical Picture of DNA Dynamics Through a Nanopore"*,
CECAM Workshop on Polymer Translocation through nanopore, Sept 16 - Sept 18, 2012.

41. *"How does a DNA translocate through a nanopore ?"*,
Condensed Matter Seminar, Kansas State University, April 02 (2012).

40. *"Some aspects of polymer translocation dynamics through nanopore: comparison of recent the ories with simulation results"*,
APS March Meeting 2012 Focus Session: Translocation through Nanopores - Novel Devices and Computational Approaches, Feb 27 - MARCH 2012, Boston, MA.

39. *"Effects of cis-trans asymmetry on Polymer Translocation through Nano pores"*,
NCBI (National Center for Biotechnology Information) Computational Biology Branch, National Library of Medicine, National Institute of Health, Bethesda, Maryland, August 11, 2011.

38. *"Effects of cistrans asymmetry on Polymer Translocation through Nano pores"*
Center for Biological and Materials Physics, Florida Atlantic University, September, 2010.

37. *"Polymer translocation through a nano-pore: scaling, universality and prospective application"*
Technical University of Munich: Modern topics in bio-soft matter, May 2009.

36. *"Some aspects of forced polymer translocation through a nano-pore"*
Institut for Physics, Johannes Gutenberg University, Germany, May 2009.

35. *"Simulation studies of DNA translocation trough nanopore"*
Invited talk at the Focused session , APS March Meeting, March 17-21, 2009, Pittsburgh, PA.

34. *"On universal aspects of forced polymer translocation through a nano-pore"* Presented at the workshop on Computer Simulation Studies in Condensed Matter Physics, Athens, GA, February 2009.

33. *"DNA dynamics in Protein and Silicon Nanopore"*
Institut for Physics, Johannes Gutenberg-University, Germany, August 2008.

32. *"DNA dynamics in Protein and Silicon Nanopore"*
Invited talk at the Focused session on Computational Nanoscience, APS March Meeting, March 5-9, 2007, Denver, CO.

31. *"DNA dynamics in Protein and Silicon Nanopore"*
Colloquium, Department of Physics, Florida Atlantic University, Boca Raton, Florida, March 30, 2007.

30. *"DNA dynamics in Protein and Silicon Nanopore"*
Condensed Matter Seminar, Department of Physics, Brown University, Providence, Rhode Island, April 30, 2007.

29. *"Morphology and Dynamics of Ionomers"*
Presented at the Florida Materials Simulation Workshop, University of South Florida, Tampa, May 2007.

28. *"DNA transport through protein and synthetic nanopore: theory meets experiment"*
UCF, Department of Chemistry weekly seminar October, 2007.

27. *"DNA dynamics in Protein and Silicon Nanopore"*
Helsinki University of technology, Helsinki, Finland, August, 2006.

26. *"DNA dynamics in Protein and Silicon Nanopore"*
The Saha Institute of Nuclear Physics, Kolkata, India, June, 2006.

25. *"DNA dynamics in Protein and Silicon Nanopore"*
Colloquium, Physics Department, University of South Florida, Jan 20, 2006.

24. *"Morphology and Dynamics of Structured Molecules"*
Weekly Seminar, Department of Chemical and Biological Engineering, Florida State University Tallahassee, Nov 18, 2005.

23. *"DNA dynamics in Nanopore"*
UCF Biophysics Seminar, Nov 17, 2005.

22. *"DNA dynamics in Nanopore"*
SPS and recruitment Seminar, University of North Florida, Jacksonville, Sept 30, 2005.

21. *"Morphology and dynamics of soft structured molecules"*
Invited talk presented at **Materials simulators Workshop**, organized by the Materials Science Department., University of Gainesville, Florida, Aug 18-19, 2005.

20. *"Morphology and dynamics of soft structured molecules"*
UCF, Department of Physics Colloquium, Orlando, April 2005.

19. *"Phase Ordering Dynamics of polymers in solution"*,
Rensellaer Polytechnic Institute, Troy, New York, May 2004.

18. *"Of Micelles & Membranes:results from large scale simulation"*,
UCF BMSC Colloquium, Jan 2004.

17. *"Phase Ordering Dynamics in Macromolecules"*
UCF, Department of Mathematics Colloquium, Nov 2003.

16. *"Self-Assembly of Amphiphiles: Comparison of Simulation Results from Different Models and Methods"*, Talk presented at the 16th Annual Workshop Computer Simulation Studies in Condensed Matter Physics organized by the Center of simulation physics, The University of Georgia, Athens, GA, February 23-27, 2003.

15. *"Self-Assembly and Pattern Formation in Soft Matter"*,
Colloquium: Florida Institute of Technology, October, 2001.

14. *"A Random walk in Polymer Physics"*,
Applied Physics Division, Kettering University, Flint, MI 48504-4898, September, 1999.

13. *"Self-Assembly of Amphiphiles"*,
Science Research Laboratory, Ford Motor Company, Dearborn, Michigan, May, 1999.

12. *"Self-Assembly of Amphiphiles"*,
San Diego State University, Department of Physics Colloquium, February, 1999.

11. *"Micellization of Surfactants and Co-operative Self-Assembly"*,
Johannes Gutenberg-Universität, Germany, August, 1998.

10. *"Micellization of Surfactants and Co-operative Self-Assembly"*,
Michigan State University, Brown Bag Seminar, October, 1997.

9. *"Numerical simulation of spin echo diffraction in disordered media with single length scales"*,
Michigan State University, Condensed Matter Seminar, October 1996.

8. *"Diffusion and Magnetic relaxation in computer generated model porous media"*,
Access in Nano-porous media Symposium, June 7-9, 1995, Michigan State University, East Lansing, Michigan.

7. *"Non-equilibrium Dynamics of Bose Gas"*,
23rd Midwest Solid State Theory Symposium, Manhattan, Kansas, October 14-15 (1995).

6. *"Dynamics of phase ordering in restricted geometries"*,
Department of Physics, University of California, Davis, February, 1995.

5. *"An overview of Quantum Monte Carlo methods; few "exact" results"*,
Kansas State University, February, 1995.

4. *"An overview of Quantum Monte Carlo methods; few "exact" results"*,
Michigan State University, March, 1995.

3. *"Exact Quantum Monte Carlo results for many fermion systems"*,
The Saha Institute of Nuclear Physics, Calcutta, India, January, 1995.

2. *"Quantum Monte Carlo results for an extended multi-band Hubbard model for oxide superconductors"*,
Tata Institute of Fundamental Research, Bombay, India, December, 1994.

1. *"Dynamics of phase transition in restricted geometries"*,
Department of Physics, Michigan State University, May, 1994.

CONTRIBUTED CONFERENCE TALKS & POSTERS

104. Aniket Bhattacharya, "Fine structures and missense mutations in intrinsically disordered proteins using Coarse-grained models and machine learning", Poster session 1, July 30, The 8th International Soft Matter Conference (ISMC2024), 2024

103. Aniket Bhattacharya, Florida “Probing dynamical heterogeneities in Intrinsically Disordered Proteins using Molecular dynamics, MC simulations, and Deep Learning”, 38th Annual workshop Recent Developments in Computer Simulational Studies in Condensed Matter Physics, Center for simulation studies, The University of Georgia, Feb 24-28, 2025

102. Swarnadeep Seth & Aniket Bhattacharya, *“Accelerating Missense Mutation Identification in Intrinsically Disordered Proteins using Deep Learning”*, Session B59 - Intrinsically Disordered proteins, APS 2024 March Meeting, March 04-08, 2024, Minneapolis, MN, USA

101. Aniket Bhattacharya, Brandon Stine, & Swarnadeep Seth *“Fine Structures of Intrinsically Disordered Proteins”*, Session B59 - Intrinsically Disordered proteins, APS 2024 March Meeting, March 04-08, 2024, Minneapolis, MN, USA

100. Brandon Stine, Aniket Bhattacharya, & Swarnadeep Seth, *“Comparison of results from different coarse-grained models of Intrinsically Disordered Proteins”*, Session B59 - Intrinsically Disordered proteins, APS 2024 March Meeting, March 04-08, 2024, Minneapolis, MN, USA

99. Swarnadeep Seth and Aniket Bhattacharya, *“Analysis of the role of co- and counter-ions on the current blockade maps of a dsDNA construct translocating through a nanopore using Electro Kinetic Brownian Dynamics”*, Poster presented at the CECAM workshop *Nanofluidics in Physics and Biology*, ENS de Lyon, France, September 10 - 13 (2023).

98. Arthur Rand, Philip Zimmy, Williuam Dunbar, Swarnadeep Seth, Aniket Bhattacharya, Zezhou Liu, Xavier Cpaldi, Wangwei Dong, Robert Sladek, and Walter Reisner, *“Expanding the use and understanding of Dual-Nanopore Technology for single molecule genomics”*, Poster presented at the NHGRI AGDT meeting, San Diego, CA June 6 - 8 (2023).

97. Aniket Bhattacharya & Swarnadeep Seth,
“Modeling current blockade in a dual nanopore device” Session V-9 Molecular Biophysics, APS 2023 March Meeting (Virtual), March 20, 2023

96. Joshua Ashby, Swarnadeep Seth, and Aniket Bhattacharya,
“Physical characteristics of some intrinsically disordered proteins from simulation studies using mesoscale models”, Session N-14, Intrinsically Disordered proteins and non-equilibrium Processes, APS 2023 March Meeting, March 06-10, 2023, Las Vegas, USA.

95. Swarnadeep Seth and Aniket Bhattacharya, *“ Electrokinetic Brownian dynamics of current blockade of a dsDNA through a nanopore”*, Session W04: Single-Molecule Characterization in Polymers and Soft Matter: Topology and Transport, APS 2023 March Meeting, March 06-10, 2023, Las Vegas, USA.

94. Jacob Bair and Aniket Bhattacharya
“Transverse fluctuations and conformations of a semi-flexible chain in a crowded environment”
APS March Meeting March 14 - 18, 2022, Chicago, USA.

93. Swarnadeep Seth, Arthur Rand, Walter Reisner, Robert Sladek and William B. Dunbar, and Aniket Bhattacharya
“Simulation studies of nonequilibrium dynamics of charged motifs in a dual nanopore”
APS March Meeting March 14 - 18, 2022, Chicago, USA.

92. Swarnadeep Seth, Arthur Rand, Walter Reisner, Rob Sladek, William B. Dunbar, and Aniket Bhattacharya
“A comparison of experimental bacterial genome mapping data with results from simulation using a coarse-grained dsDNA construct“
APS March Meeting March 14 - 18, 2022, Chicago, USA.

91. Xavier Capaldi, Arthur Rand, Philip Zimny, Ronald Nagel, Chaitra Telang, Justin Mollison, Aaron Bruns, Emily Leff, An Vuong, Swarnadeep seth, Aniket Bhattacharya, William Dunbar and Walter Reisner,
"Genome Mapping using a Dual Nanopore Device"
APS March Meeting March 14 - 18, 2022, Chicago, USA.

90. Ronit Agarwala and Aniket Bhattacharya,
"A random walk model of social distancing to mitigate COVID-19 spread"
APS March Meeting March 15 - 19, 2021 (Virtual).

89. Swarnadeep Seth, An Vuong, Walter Reisner, Willima Dunbar, and Aniket Bhattacharya,
"Decoding DNA barcodes using a Cylindrical Nanopore"
APS March Meeting March 15 - 19, 2021 (Virtual).

88. Aniket Bhattacharya and Swarnadeep Seth,
"Decoding DNA barcodes using a Cylindrical Nanopore"
APS March Meeting March 15 - 19, 2021 (Virtual).

87. Walter Reisner, An Vuong, Xavier Capaldi, Swarnadeep Seth, Philip Zimmy, Roland Nagel, Aniket Bhattacharya, and William Dunbar,
"DNA Flossing in a Dual Pore Device"
APS March Meeting March 15 - 19, 2021 (Virtual).

86. Jan Rothori, Peter Virnau, and Aniket Bhattacharya
" Knot dynamics of a DNA strand pushed inside a nanochannel "
APS March Meeting, March 2 – 6, 2020 (Virtual) .

85. Aniket Bhattacharya and Swarnadeep Seth
" In silico studies of "DNA Flossing" through a Double-Nanopore system "
APS March Meeting, March 2 – 6, 2020 (Virtual).

84. Peter Smucz, Swarnadeep Seth, and Aniket Bhattacharya
"Pulling a DNA through a Double-Nanopore system: A Brownian Dynamics Study "
APS March Meeting, March 2 – 6, 2020 (Virtual) .

83. Aniket Bhattacharya and Swarnadeep Seth
"A "Tug-of-War" in a three dimensional Double-Nanopore system"
APS March Meeting, March 2 – 6, 2020 (Virtual) .

82. Simon Bernier, Walter Reisner, and Aniket Bhattacharya
"Evolution of Nested Folding States in Compression of a Strongly Confined Semiflexible Chain"
APS March Meeting, March 5–9, 2018; Los Angeles, California, USA.

81. Towfiq Ahmed, Swarnadeep Seth, and Aniket Bhattacharya
"Multiscale Modeling of DNA Translocation through Multiple Nanopores "
APS March Meeting, March 4–8, 2019; Boston, Massachusetts, USA.

80. Swarnadeep Seth, Walter Reisner, William B Dunbar, and Aniket Bhattacharya
" Brownian Dynamics studies of a "Tug-of-War" of a DNA translocating through a two-nanopore system"
APS March Meeting, March 4–8, 2019; Boston, Massachusetts, USA.

79. Eric Switzer and Aniket Bhattacharya
"Scaling relations for the continuum limit from collisions between nanoclusters and rough surfaces"
APS March Meeting, March 4–8, 2019; Boston, Massachusetts, USA.

78. Tyler Campbell, Aniket Bhattacharya, and Walter Reisner
"DNA dynamics squeezed inside a nano-channel with a sliding gasket"
APS March Meeting, March 13-17, 2017 New Orleans, Louisiana, USA.

77. Sabrina Scime, Rachel Scime, Claudia Andl, and Aniket Bhattacharya
"Understanding Patterns of Tumor Cell Invasion in Organotypic Reconstruct Cultures Using Cluster Analysis Algorithms"
UCF Showcase for Undergraduate Research, April 06, 2017.

76. Theodore Cox, Julie Brisset, Joshua Colwell, and Aniket Bhattacharya,
"Collisions of Lennard-Jones Clusters,
UCF Showcase for Undergraduate Research, April 06, 2017.

75. Aniket Bhattacharya, Aiqun Huang, and Walter Reisner
"Non-Equilibrium Dynamics of Nano-channel Confined DNA: A Brownian Dynamics Simulation Study "
APS March Meeting, March 14-18, 2016 Baltimore, MD, USA.

74. Ramesh Adhikari and Aniket Bhattacharya,
"Influence of solvent viscosity on translocation of semi-flexible polymer through a nano-pore",
Graduate Research Forum, UCF, March 31, 2015.

73. Aiqun Huang and Aniket Bhattacharya *"Conformations of double stranded DNA: the effect of breathing bubbles"*
UCF Graduate Research Forum, March 31, 2015, Orlando, Florida, USA

72. Nathaniel Tukdarian, Aiqun Huang, Ramesh Adhikari, Aniket Bhattacharya,
"Dynamics of a fluctuating semi-flexible membrane"
UCF Showcase of Undergraduate Research Excellence, Orlando, April 2, 2015

71. Ramesh Adhikari and Aniket Bhattacharya,
"Conformations and dynamics of a translocating semi-flexible chain through a Nano-pore facilitated by chaperones"
APS March Meeting, March 2-6, 2015; San Antonio, Texas, USA.

70. Ramesh Adhikari and Aniket Bhattacharya,
"Effect of solvent viscosity on driven translocation of a semi-flexible polymer through a nanopore"
APS March Meeting, March 2-6, 2015; San Antonio, Texas, USA.

69. Hsiao-Ping Hsu, Aiqun Huang, Aniket Bhattacharya, and Kurt Binder,
"Universal aspects of conformations and transverse fluctuations of a two-dimensional semi-flexible chain"
APS March Meeting March 2-6, 2015; San Antonio, Texas, USA.

68. Nathaniel Tukdarian, Aiqun Huang, Ramesh Adhikari, Aniket Bhattacharya,
"Dynamics of a fluctuating semi-flexible membrane"
APS March Meeting March 2-6, 2015; San Antonio, Texas, USA.

67. A. Krenn, S. Starr, R. Youngquist, M. Nurge, J. Sass, J. Fesmire, C. Cariker and A. Bhattacharya,
"The safe removal of frozen air from the annulus of an LH2 storage tank"
2015 Cryogenic Engineering Conference and International Cryogenic Materials Conference, Tucson, Arizona, June 28 - July 02, 2015.

66. Ramesh Adhikari and Aniket Bhattacharya,
"Translocation of semi-flexible polymer through a nano-pore assisted by binding particles"
Graduate Research Forum, UCF, April 1, 2014.

65. Aiqun Huang, Aniket Bhattacharya and Kurt Binder *"Conformations, transverse fluctuations and crossover dynamics of a semi-flexible chain in two dimensions"*, UCF Graduate Research Forum, April 1, 2014, Orlando, Florida, USA

64. Aiqun Huang and Aniket Bhattacharya,
"Conformations of double stranded DNA: the effect of breathing bubbles"
APS March Meeting March 2-6, 2015; San Antonio, Texas, USA.

63. Ramesh Adhikari and Aniket Bhattacharya,
"Driven translocation of Polymer through a nanopore: effect of heterogeneous flexibility",
APS March meeting 2014, March 3-7, 2014; Denver, Colorado, USA.

62. Aniket Bhattacharya, Aiqun Huang, and Kurt Binder,
"Universal Crossover Dynamics of a Semi-Flexible Polymer in Two Dimensions",
APS March meeting, March 3-7, 2014; Denver, Colorado, USA.

61. Aiqun Huang, Aniket Bhattacharya, and Kurt Binder,
"Conformations and Transverse Fluctuations of a Semi-Flexible Chain in Two Dimensions,
APS March meeting 2014, March 3-7, 2014; Denver, Colorado, USA.

60. Aniket Bhattacharya,
"College Physics in Studio and Standard Classroom Environment",
Poster presented at the AAPT meeting *"Introductory Physics for Life Sciences"*, Arlington, VA, Feb 16-18, 2014.

59. Ramesh Adhikari and Aniket Bhattacharya,
"How tension propagates for a driven semi-flexible chain while translocating through a nano-pore"
APS March Meeting, March 18-22, 2013; Baltimore, Maryland, USA.

58. Aiqun Huang and Aniket Bhattacharya,
"Fluctuations and structural transitions of confined biopolymers"
APS March Meeting, March 18-22, 2013; Baltimore, Maryland, USA.

57. Aniruddha Dutta, Biao Yuan, Helge, Christopher J. Clukay, Chris Grabill, Helge Heinrich, Aniket Bhattacharya, and Stephen Kuebler, *"Quantification of metallic nanoparticle morphology with tilt series imaging by transmission electron microscopy"*
APS March Meeting 2012, Feb 27 - March 02, Boston, Massachusetts, USA.

56. Stephen Kuebler, Aniruddha Dutta, Christopher J. Clukay, Chris Grabill, Helge Heinrich, and Aniket Bhattacharya,
"Morphologies of an anisotropic diffusion limited growth model to study electroless deposition"
APS March Meeting 2012, Feb 27 - March 02, Boston, Massachusetts, USA.

55. Ramesh Adhikari, Andy W.C. Lau and Aniket Bhattacharya,
"Translocation dynamics of a semi-flexible chain through a nano-pore"
APS March Meeting 2012, Feb 27 - March 02, Boston, Massachusetts, USA.

54. Timo Ikonen, Tapio Ala-Nissila, Aniket Bhattacharya, and Wokyung Sung,
"Non-equilibrium tension propagation as a unifying description of driven polymer translocation", APS March Meeting 2012, Feb 27 - March 02, Boston, Massachusetts, USA.

53. Aniket Bhattacharya, Tapio Ala-Nissila, and Wokyung Sung,
"Polymer translocation facilitated by Chaperones",
APS March Meeting 2011, March 21–25, 2011; Dallas, Texas, USA.

52. Timo Ikonen, Tapio Ala-Nissila, Aniket Bhattacharya, and Wokyung Sung,
"A Coupled-Dynamics Model for Polymer Translocation",
APS March Meeting, March 21-25, 2011; Dallas, Texas, USA.

51. Stephen M. Kuebler and Aniket Bhattacharya,
"Simulation studies of diffusion limited ballistic growth of particles from a surface"
APS March Meeting, March 21-25, 2011; Dallas, TX, USA.

50. Aniruddha Dutta, Helge Heinrich, Stephen Kuebler, Chris Grabill, and Aniket Bhattacharya,
"Quantitative Transmission Electron Microscopy of Nanoparticles and Thin-Film Formation in Electroless Metalization of Polymeric Surfaces"
APS March Meeting, March 21-25, 2011; Dallas, TX, USA.

49. C. J. Clukay, D. J. Freppon, C. N. Grabill, A. Dutta, H. Heinrich, A. Bhattacharya, and S. M. Kuebler, *"Characterization of gold nanoparticles generated in situ on a negative-photoresist polymer substrate"*
Beckman Scholars and Beckman Young Investigators Symposium (Irvine, CA, 11-13 August 2011, 2011).

48. C. Clukay, D. Freppon, C. Grabill, S. M. Kuebler, A. Bhattacharya, A. Dutta, and H. Heinrich, *"Effect of select chemical components on the morphology of electrolessly deposited silver"*, UCF Showcase of Undergraduate Research (Orlando, FL, 1 April 2011, 2011).

47. Mike Lively, Aniket Bhattacharya, Chris Grabill, Stephen M. Kuebler, Aniruddha Dutta, and Helge Heinrich,
"Simulation studies of electroless metal deposition using gold nano-clusters on polymeric surfaces"
APS March Meeting, March 15-19, 2010; Portland, Oregon, USA.

46. Aniket Bhattacharya, Christopher Lorscher, Tapio Ala-Nissila, and Wokyung Sung,
"Dynamics of polymer translocation rectified by attractive binding particles"
APS March Meeting, March 15-19, 2010; Portland, OR, USA.

45. *"Rectified polymer translocation induced by solvent asymmetry between cis and $trans$ compartments"*
Christopher Lorscher, Aniket Bhattacharya, and Tapio Ala-Nissila,
APS March Meeting, March 15–19, 2010; Portland, OR, USA.

44. *"Out of Equilibrium Characteristics of a Forced Translocating Chain through a Nanopore"*
Aniket Bhattacharya and Kurt Binder,
APS March Meeting, March 15-19, 2010; Portland, Oregon, USA.

43. C. N. Grabill, H. E. Williams, D. Freppon, C. Clukay, S. M. Kuebler, A. Bhattacharya, A. Dutta, and H. Heinrich, *"Chemical and physical parameters for controlling the nanoscale morphology of electrolessly deposited metal"*, in Florida Inorganic and Materials Symposium, (Univ. of Florida, Gainesville, FL, 2010).

42. A. Y. Ouazzani, A. Bhattacharya, H. Heinrich, A. Dutta, S. M. Kuebler, C. N. Grabill, and H. E. Williams, *"Simulation studies of electroless metal deposition on polymeric surfaces"*, Annual Meeting of the Florida Chapter of the American Vacuum Society (Univ. of Central Florida, Orlando, FL, 8-12 March 2009, 2009).

41. C. N. Grabill, H. E. Williams, S. M. Kuebler, A. Y. Ouazzani, A. Bhattacharya, A. Dutta, and H. Heinrich, *"Chemical system for fundamental study of electroless metalization"*, Annual Meeting of the Florida Chapter of the American Vacuum Society (Univ. of Central Florida, Orlando, FL, 8-12 March 2009, 2009).

40. A. Dutta, H. Heinrich, C. N. Grabill, S. M. Kuebler, H. E. Williams, A. I. Ouazzani, and A. Bhattacharya, *"Transmission electron microscopy study of silver and gold nanoparticles on polymeric surfaces"*, Nanoflorida 2009, (Orlando, FL, 2009).

39. Christopher Lorscher, Aniket Bhattacharya, and Tapio Ala-Nissila, *"Polymer translocation induced by bad solvent"* APS March Meeting, March 16-20, 2009; Pittsburgh, PA, USA.

38. Abdelillah Ouazzani, Abdelkader Kara, and Aniket Bhattacharya, *"Self-assembly of FKE8 peptides using CHARMM"* APS March Meeting, March 16-20, 2009; Pittsburgh, PA, USA.

37. Tapio Ala-Nissila, Kaifu Luo, See-Chen Ying, and Aniket Bhattacharya, *"Influence of polymer-pore interactions on translocation"* APS March Meeting, March 10-14, 2008; New Orleans, Louisiana, USA.

36. Kaifu Luo, Tapio Ala-Nissila, Powel Pomorski, Mikko Karttunen, See-Chen Ying, and Aniket Bhattacharya, *"Scaling Exponents for Polymer Translocation through a Nanopore"* APS March Meeting, March 10-14, 2008, New Orleans, LA, USA.

35. Aniket Bhattacharya, Kaifu Luo, Tapio Ala-Nissila, and See-Chen Ying *"Polymer translocation through a nanopore in presence of attractive binding particles"* APS March Meeting 2008, March 10-14, 2008; New Orleans, LA, USA.

34. Aniket Bhattacharya, *"Driven DNA translocation through thin and long nanopores"* APS March Meeting 2006, March 13-17, Baltimore, MD, USA.

33. Aniket Bhattacharya, Monojoy Goswami, and Sanat Kumar, *"Brownian Dynamics Studies of Morphology and Dynamics of Associative Ionomers"*, APS March Meeting 2005, March 19-25, Los Angeles, CA, USA.

32. Geuorgui Bourov and Aniket Bhattacharya, *"Effect of Amphiphilic Geometry on Phase Separation and Micellization: A Gibbs-ensemble Monte Carlo Study"*, APS March Meeting 2005, March 19-25, Los Angeles, CA, USA.

31. Monojoy Goswami, Sanat Kumar, Gerassimos Orkoulas, and Aniket Bhattacharya, *"Computer Simulations of Aggregate Formation and Dynamics in Ionomers"*, APS March Meeting 2005, March 19-25, Los Angeles, CA, USA.

30. Aniket Bhattacharya, Monojoy Goswami, and Sanat Kumar, *"Brownian Dynamics Studies of Morphology and Dynamics of Associative Ionomers"*, APS March Meeting 2005, March 19-25, Los Angeles, CA

29. Geuorgui Bourov & Aniket Bhattacharya, *"A 3D Brownian Dynamics simulation study of packing constraints in amphiphilic self-assembly"*, APS March Meeting 2004, March 22-26, Montreal, Canada

28. Aniket Bhattacharya & Geuorgui Bourov, *"A comparison of results of amphiphilic self-assembly in NVT and NPT ensembles: effect of volume release due to packing constraints"*, APS March Meeting 2004, March 22-26, Montreal, Canada.

27. Vincent Maycock & Aniket Bhattacharya, *"Cluster autocorrelation and distribution in amphiphilic self-assembly: effect of geometry"*, APS March Meeting 2004, March 22-26, Montreal, Canada.

26. Aniket Bhattacharya, Monojoy Goswami,& Sanat Kumar
"Morphology and Dynamics of Associative Ionomers",
MRS Fall Meeting, November 29 - Dec 03, 2004, Boston, MA, USA.

25. George Bourov and Aniket Bhattacharya
"Brownian dynamics simulation of colloidal self-assembly",
APS March Meeting, March 3-7, 2003; Austin, TX, USA.

24. Karlo Kitanovski, George Bourov, and Aniket Bhattacharya
"Generalized kink-jump and reptation algorithm for amphiphilic self-assembly: the role of packing parameter",
APS March Meeting March 3-7, 2003; Austin, TX, USA.

23. Aniket Bhattacharya
"Conformation and Dynamics of an End-Labeled Polymer Chain in Porous Media",
APS March Meeting, March 18-22, 2002, Indianapolis, IN, USA.

22. *"Molecular Dynamics Simulation of Electrophoresis of a Telechelic Polymer Chain"*,
Paper presented at the American Physical Society Division of Computational Physics Annual Meeting: Conference on Computational Physics 2002 August 25-28, 2002; San Diego, CA, USA.

21. Aniket Bhattacharya
"Comparison of Different Lattice Models of Amphiphiles: A Monte Carlo Study",
APS March Meeting, March 12-16, 2001, Seattle, WA, USA.

20. Hong Liu, Aniket Bhattacharya, and Amitabha Chakrabarti,
"Network Domain Structure in Phase Separating Polymer Solution",
APS March Meeting, March 20-24, 2000, Minneapolis, MN, USA.

19. Aniket Bhattacharya and S. D. Mahanti,
"New Results from a Lattice Model of Amphiphiles,
APS March Meeting, March 20-24, 2000, Minneapolis, MN, USA.

18. S.D. Mahanti and Aniket Bhattacharya,
"Susceptibilities and Moments in a Lattice Model of Surfactant Self-Assembly",
APS March Meeting, March 20-26, 1999; Atlanta, GA, USA.

17. S. D. Mahanti, Aniket Bhattacharya, and Amitabha Chakrabarti,
"Network Formation in Phase Separating Polymer Solution: A molecular Dynamics Simulation Studies",
APS March Meeting, March 16-20, 1998; Los Angeles, CA, USA

16. Aniket Bhattacharya and S. D. Mahanti,
"Ionic Micelles and Co-operative Self-Assembly",
APS March Meeting, March 16-20, 1998; Los Angeles, CA, USA

15. Aniket Bhattacharya and S.D. Mahanti,
"Simulation of Spin Echo in Disordered Media with single length scales",
APS March Meeting, March 17-21, 1997, Kansas City, MO, USA.

14. S. D. Mahanti, Aniket Bhattacharya, and Amitabha Chakrabarti,
"Diffusion in computer generated model Vycors and Aerogels",
APS March Meeting, March 20-24, 1996; St. Louis, MO, USA.

13. Aniket Bhattacharya and Satya N. Majumdar,
"Dynamics of Bose Gas",
APS March Meeting, March 20-24, 1996; St. Louis, MO, USA.

12. Aniket Bhattacharya and S. D. Mahanti,
"Probing cluster melting through molecular dynamic simulation of dynamic structure factor",
APS March Meeting, March 20-24, 1995, San Jose, CA, USA.

11. W. R. Hammond, S. D. Mahanti, and A. Bhattacharya,
"Xenon micro-clusters inside Zeolite channels",
APS March Meeting, March 20-24, 1995, San Jose, CA USA.

10. Aniket Bhattacharya, M. Rao, and A. Chakrabarti,
"Dynamics of phase ordering in fluid mixtures and liquid crystals",
APS March Meeting, March 21-25, 1994. Pittsburgh, PA, USA.

9. Aniket Bhattacharya and J. B. Anderson,
"Exact results for the interaction potentials for Helium trimers and H-He",
APS March Meeting, March 21-25, 1994. Pittsburgh, PA, USA.

8. Aniket Bhattacharya and J. B. Anderson,
"Binding energy of a helium trimer by novel Green's function Monte Carlo method",
APS March Meeting, March 22-26, 1993, Seattle, WA, USA.

7. Aniket Bhattacharya and C. S. Wang,
"Variational Monte Carlo studies of a two dimensional electron gas under a strong magnetic field",
APS March Meeting, March 16-20, 1992, Indianapolis, IN, USA.

6. Aniket Bhattacharya and C. S. Wang,
"On signs of the hopping integrals of an extended Hubbard model for oxide superconductors",
APS March Meeting, March 16-20, 1992, Indianapolis, IN, USA.

5. Aniket Bhattacharya and C. S. Wang,
"Variational Monte Carlo studies of a two dimensional electron gas under a strong magnetic field",
APS March Meeting, March 16-20, 1992, Indianapolis, IN, USA.

4. Aniket Bhattacharya and C. S. Wang,
"Variational Monte Carlo studies of Flux phases in the Hubbard model",
APS March Meeting, March 18-22, 1991, Cincinnati, OH, USA.

3. Aniket Bhattacharya and C. S. Wang,
"Comparison of various band model of high temperature superconductivity",
APS March Meeting, March 12-16, 1990, Anaheim, CA, USA.

2. Aniket Bhattacharya and C. S. Wang,
"Quantum Monte Carlo simulation of an extended Hubbard model for high temperature superconductors", APS March Meeting, March 21-25, 1988, New Orleans, LA, USA.

1. Aniket Bhattacharya and C. S. Wang,
"Variational Monte Carlo Simulation of an extended Hubbard model of CuO2 lattice",
APS March Meeting, March 21-25, 1988, New Orleans, LA, USA.