# Curriculum Vitae

Aniket **Bhattacharya**
Professor
Department of Physics, PSB 452
University of Central Florida
Orlando, Fl 32816-2385

e-mail: *Aniket.Bhattacharya@ucf.edu*
Skype: aniket501
Physics Office: (407)-823-2325
Cell: (407)-925-8306
URL: www.physics.ucf.edu/~aniket

## 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)
B.S.: Presidency College, Physics (with first class Honors)

## Appointments:

Aug 20018 – Present: Professor, Department of 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, Penn 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

## Short term visiting appointments:

Institute for Physics, Johannes Gutenberg University, Germany, 2003, 2008, 2010, 2011, 2012, 2013; Aalto University (formerly Helsinki University of Technology), Espoo, Finland, 2006,2007, 2008, 2009, 2010, Florida Atlantic University, Boca Raton, USA, 2010, 2011

## Professional highlights and synergistic activities:

- 1800+ Google Scholar citations of research papers with h-index 24, i-10 index 41
- Total ~ $1.9 million dollar of NSF & NASA funding at UCF (with $0.48 million credit).
- Physics Graduate Coordinator (program director) 2006 -2009
- Invited speaker at the March meeting of the American Physical Society on focused session (2007, 2009, and 2012).
- Session chair and organizer for focus sessions: APS March Meeting 2007, 2012, & 2015
- Affiliate member of AMPAC, The Center for Nano Science and Technology, UCF
- Author or co-author of 70+ refereed papers in high impact journals, 8 refereed conference proceedings
- Member of the American Physical Society, Member of the Materials Research Society
- Panel and proposal reviewer for the NSF and other European agencies
- Reviewer for Nature, Physical Review Letters, Physical Review E, The Journal of Chemical Physics, Macromolecules, European Physical Journal E and many other.

## Research Interests:

*Theoretical and Simulation Studies Soft and regular Condensed Matter systems, Cluster dynamics, Polymer & Biologically inspired physics, DNA Transport through protein pore, confined biopolymers in nano-channels and crowded environment, scaling theories of biopolymers, Nonlinear elasticity of biological network & gel, and physics of Cancer*

## Recent Publications:

1. Simon Bernier, Aiqun Huan, Walter Reisner, and Aniket Bhattacharya
   *Evolution of Nested Folding States in Compression of a Strongly Confined Semiflexible Chain*
   **Macromolecules 2018**, *51* (11), pp 4012–4022 **DOI:** 10.1021/acs.macromol.7b02748
2. 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).
3. Aiqun Huan, Walter Reisner, and Aniket Bhattacharya
   *Dynamics of DNA Squeezed inside a Nanochannel via a Sliding Gasket*
   **Polymers** 2016, **8(**10), 352; https://doi.org/10.3390/polym8100352
4. 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).
5. Ramesh Adhikari and Aniket Bhattacharya
   *Deconvoluting chain heterogeneities from driven translocation through a nano-pore*
   **Euro Phys. Lett**. **109** , 38001 (2015).
6. 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).
7. Aiqun Huang and Aniket Bhattacharya,
   *DNA confined in a two-dimensional strip geometry* **Euro Phys. Lett**. **106** , 18004 (2014).
8. Aiqun Huang, Ramesh Adhikari, Aniket Bhattacharya, and Kurt Binder
   *Universal monomer dynamics of a two dimensional semiflexible chain*
   **Euro Phys. Lett. 105** , 18002 (2014).
9. Timo Ikonen, Aniket Bhattacharya, Tapio Ala-Nissila, and Wokyung Sung
   *Influence of pore firction on the universal aspects of driven polymer translocation*
   **Euro Phys. Lett**. **103** 38001 (2013).
10. 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** , 240909 (2013).

## Graduate (G) and undergraduate (UG) mentees:

George Bourov (G), Philip Metzger (G), Aiqun Huang (G), Ramesh Adhikari (G), Vincent Maycock (G), Christopher Lorscher (G), Abdellah Ooazani,(G), Colemen Carriker (G), Angela Krenn (G), Tyler Campbell (G), Eric Switzer (G), Swarnadeep Seth (G), Heath Morrison (UG), Anthony Robledo (UG), Theodore Cox (UG) , Katrina Cook (UG), Sabrina Scime, (UG), Rachel Scime (UG), Sohang Gandhi (UG), Sergio Tafur (UG) and many others.