

EHSSAN NAZOCKDAST

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Education

Ph.D., Chemical Engineering

City College of New York, City University of New York (September 2007- December 2012)

Thesis title: "Smoluchowski theory for concentrated colloidal dispersions far from equilibrium"

Advisor: Jeffrey F. Morris

M.Sc., Polymer Engineering (summa cum laude)

Amirkabir University of Technology (September 2004-May 2007)

Thesis title: "Linear and nonlinear rheology of polymer/clay nanocomposites" Advisor: Hossein Nazockdast

B.Sc., Polymer Engineering (summa cum laude)

Amirkabir University of Technology (September 1999-May 2004)

Professional Experiences

Assistant Professor of Applied Physical Sciences at UNC Chapel Hill July 2017-present

Flatiron Research Fellow. June 2016-June 2017

Simons Foundation, Center for Computational Biology.

Postdoctoral Research Associate June 2013-June 2016

New York University, Courant Institute, Applied Math Lab.

Advisor: Michael J. Shelley

Doctoral Research Assistant September 2007-May 2013

City College of New York, Levich Institute New York, NY

Advisor: Jeffrey F. Morris

Awards & Honors

Recipient of Andreas Acrivos Fellowship awarded to the most distinguished first year PhD student in the department.

Winner of the poster competition (Fluid Mechanics) in AIChE 2012 annual meeting.

Winner of the poster competition (Fluid Mechanics) in AIChE 2010 annual meeting.

Recipient of NSF CCNY-Chicago PREM fellowship (September 2010-May 2012)

Recipient of Society of Rheology travel grant (October 2011).

Publications

1. O. du Roure, A. Linder, **E. Nazockdast**, and M.J. Shelley. Dynamics of Flexible Fibers in Flows." *Annual Review of Fluid Mechanics* 50, no. 1 (2018).
2. H.-Y. Wu, **E. Nazockdast**, M. J. Shelley, and D. Needleman, Forces positioning the mitotic spindle: Theories, and now experiments. *Bioessays* 39.2 (2017).
3. **E. Nazockdast**, A. Rahimian, D. Needleman, M. J. Shelley, A fast platform for simulating semi-flexible fiber suspensions applied to cell mechanics, *Journal of Computational Physics*, 329, 173-209 (2017).
4. **E. Nazockdast**, A. Rahimian, D. Needleman, M. J. Shelley, Cytoplasmic flows as signatures for the mechanics of mitotic positioning, *Molecular biology of the cell* 28.23 (2017): 3261-3270.
5. S. Redemann, J. Baumgart, N. Lindow, **E. Nazockdast**, S. Futhauer, A. Kratz, D. J. Needleman, M. Shelley, S. Prohaska, and T. Muller-Reichert, C. elegans chromosomes connect to centrosomes by anchoring into the spindle network, *Nature communications* 8 (2017): 15288.
6. **E. Nazockdast**, J. F. Morris, and Active microrheology of colloidal suspensions: simulation and microstructural theory, *J. Rheol*, 60, 733 (2016).
7. T. Hosseini-Sianaki, H. Nazockdast, B. Salehnia and **E. Nazockdast**, Microphase separation and hard domain assembly in thermoplastic polyurethane/multiwalled carbon nanotube nanocomposites, *Polym. Eng. Sci.*, 55, 2163-2173 (2015).
8. **E. Nazockdast**, J. F. Morris, Pair dynamics and microstructure in sheared colloidal dispersion: simulation and Smoluchowski theory, *Phys. Fluids*, 25, 601 (2013).
9. **E. Nazockdast**, J. F. Morris, Microstructural theory and the rheology of concentrated colloidal suspensions, *J. Fluid Mech.*, 713, 420-452 (2012).
10. **E. Nazockdast**, J. F. Morris, Effect of repulsive interactions on microstructure and rheology of concentrated colloidal dispersions, *Soft Matter*, 8, 4223-4234 (2012).
11. **E. Nazockdast**, H. Nazockdast, Rheological modeling of polymer/layered silicate nanocomposites, *Appl. Rheol.*, 21, 24434-24444 (2011).
12. **E. Nazockdast**, H. Nazockdast, F. Goharpey, Linear and nonlinear melt-state viscoelastic properties of polypropylene/organoclay nanocomposites, *Polym. Eng. Sci.*, 48, 1230-1249 (2008).
13. H. Haddadi, **E. Nazockdast**, B. Ghalei, "Chemorheological characterization of thermosetting Polyurethane formulations containing different chain extender contents," *Polym Eng. Sci.*, 48, 2446-2453 (2008).

Teaching

- Spring 2018 Soft Materials and Complex Fluids
- Fall 2017 Computational Physics

Professional Affiliations

American Physical Society (APS)

American Institute of Chemical Engineers (AIChE)

Society of Rheology (SOR)

Society of Industrial and Applied Mathematics (SIAM) Biophysical Society

American Society of Cellular Biology (ASCB) The society of Engineering Science (SES)