2024

Curriculum Vitae

Mohammad Reza Ejtehadi

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Curriculum Vitae:

Personal:

- Last Name: Ejtehadi
- First Name: Mohammad Reza
- Date of birth: 04.04.1964
- Place of birth: Tehran, Iran.
- Nationality: Iranian.

Contacts:

Department of Physics
Sharif University of Technology
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Post-Secondary Education:

- Ph.D. in Physics
  Soft Condensed Matter Physics,
  "Equilibrium Structures of Heteropolymers and Inter-monomer Interactions"
  Sharif University of Technology, Tehran, Iran 1998.
- Master of Science
  Theoretical Physics,
  "Geometry of Random Walk"
  Tehran University, Tehran, Iran 1992.
- Bachelor of Science
  Physics,
  Tehran University, Tehran, Iran 1987.

Research Interests:

- Biological Physics
- Soft Condensed Matter Physics
- Complex Systems and Computational Physics

Employment Record:

- Physics Professor at “Sharif University of Technology”, Tehran, Iran, 2013– present.
- Physics Associate Professor at “Sharif University of Technology”, Tehran, Iran, 2008– 2013.
- Physics Assistant Professor at “Sharif University of Technology”, Tehran, Iran, 2004 – 2008.
- Research Associate, “Institute for studies in Theoretical Physics and Mathematics (IPM)”, Tehran, Iran, 2004 - 2008.
- Research Associate, Professor Steve Plotkin’s Group, “Department of Physics and Astronomy, University of British Columbia”, Vancouver, Canada, 2002 – 2004.
- Post-Doctoral fellow, Professor Kurt Kremer’s group, “Max-Planck Institute for Polymer Research”, Mainz, Germany, 1999 - 2002,
- Assistant Professor, “Institute for studies in Theoretical Physics and Mathematics (IPM)”Tehran, Iran, 1998 - 1999,
- Ph.D. Researcher, “Institute for studies in Theoretical Physics and Mathematics (IPM)”, Tehran, Iran, 1994 – 1998.

Administrative positions:

- Director of International Campus of Sharif University of Technology, since 2019.
- Leader of the Soft Condensed Matter Group at Sharif University of Technology, since 2004.
- Director of the “Central Laboratory” of Sharif University of Technology, since 2014 – 2019.
- Vice-chair for Graduate Studies, “Department of Physics, Sharif University of Technology”, Tehran, Iran, 2010-2012.
- Vice-chair for Research Affairs ,“Department of Physics, Sharif University of Technology”, Tehran, Iran, 2008-2010.

Committees/Memberships/Professional activities:

- President of the Physics Society of Iran, 2016 – 2023.
- Member of the “International Union of Pure and Applied Physics” (IUPAP), C6 commission on Biological physics, 2017 - 2022.
- Member of the “International Union of Pure and Applied Physics” (IUPAP), C3 commission on statistical physics, 2011 - 2017.
- Executive Board member of the Physics Society of Iran, 2008 – 2014.
- Board member of the “Center of Excellence in Complex systems and Condensed Matter (CSCM)”, Tehran, Iran. 2006-2016.
- Member of the National Committee for programming physics educations at Iranian universities, 2011 – 2015.
- Chairman of “5th International Conference of NanoStructures (ICNS5)”, March 6 – 9, 2014 in Kish Island, Iran.
- Chairman of the Scientific Committee of “37th International Physics Olympiad (IPhO2007)”, Isfahan, Iran.
- Member of the “American Physics Society”, since 2004.
- Member of the “Physics Society of Iran”, since 1984.
- Member of the “International Liquid Crystal Society”, since 2012.

Awards:

- Awarded as Senior Associate of “the Abdus Salam International Center for Theoretical Physics (ICTP)”. From 2014 – 2019
- Awarded as Senior Associate of “the Abdus Salam International Center for Theoretical Physics (ICTP)”. From 2020 - 2025
- Distinguished researcher of the department of physics at Sharif University of Technology, 2018.
- Distinguish researcher of the Sharif University of Technology for International Collaborations, 2016.
- The Best Physics Teacher Award – Sharif University of Technology - 2010

Teaching Experience

The course name	Level/For	Periodicity
Thermodynamics and statistical Physics I**	Undergrad	5 semesters
Thermodynamics and statistical Physics II**	Undergrad	5 semesters
Thermodynamics and statistical Physics III (advanced stat. phys.)	Graduate	1 semester
Soft Condensed Matter	PhD Students	5 semesters
Computational Physics, Physics simulations **	Common*	Frequently
Biophysics **	Common*	Frequently
Fluid Dynamics**	Common*	1 semesters
Nano-Computation	Nano-technology PhD students	2 semesters
General Physics I **	Undergrad	6 semesters
General Physics II**	Undergrad	6 semesters
General Physics III**	Undergrad	2 semesters
General Physics IV**	Undergrad	3 semesters
Advanced Methods in Simulations	PhD Students	1 semester

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* A course for both undergrads and master students

** The lectures have been recorded and are available both on YouTube and https://ocw.sharif.edu (in Persian)

Collaborations

Christos Likos,	University of Vienna,
Ali Hassanali,	ICTP, Trieste

Ursella Roethlisberger	EPFL, Luasanne
Helmut Schiessel,	Lorentz Institute, Lieden
Daniel Bonn,	Amsterdam,
Margarida Telo da Gama,	Centro de FísicaTeórica e Computacional, Lisboa
Fathollah Varnik,	Ruhr-Universität Bochum
Ralf Metzler,	Technische Universität München
Steve Plotkin,	University of British Columbia
Morteza Mahmoudi,	Harvard Medical School
Hamid Mobasheri,	Tehran University
Ralf Everaers,	ENS de Lyon

Past Supervised Students

PhD:

Nima Hamedani Radja	(Consultant at d-fine GmbH, London, UK)
Mehdi Neekamal	(Assistant Prof.,Shahid Rajaee Univ. Iran)
Mohammad Reza Mozaffari	(Assistant Prof., University of Qom, Iran)
Behrouz Eslami Mossallam	(Postdoc at TUDelf, the Netherlands)
Reza Shirsavar	(Assistant Prof., Zanjan University, Iran)
Peyman Shariat-Panahi	(Assistant Prof., Tehran University, Iran)
Azim-BerdyBesya	
Arman Fathizadeh	(Postdoc at Texas University, USA)
Farnoush Farhpour	(Postdoc at University of Duisburg-Essen, Germany)
Zahra Eskandary	(Postdoc at Max-Planck-Institute for Intelligent Systems, Germany)
Rouhollah Abdolvahab	(Assistant Prof., Science and technology University, Iran)
Masoumeh Hashemi	
Hosein Salari	(Postdoc at U Gronoble-Alpes, France)
Hamid Seyed-Allaee	(Postdoc at TUM, Germany)
Maryam Khatami	(Postdoc at TUM, Germany)
Azadeh Alavi	(Postdoc at Wilhems Universitaet, Germany)
Mahsa Mofidi	(Postdoc at University of North Carolina)
Neda Refiolhoseini	(Postdoc at University of Dinsburg-Essen)
Zahra Ahmadian Dehaghani	(Postdoc at SISSA, Italy)
Najla Hosseini	(Postdoc at Uppsala University)
Ali Farnudi	(Researcher at WHO, Lyon)
Shadi Rahnama	

MSc:

Vahid Shahrezaei	(Phd from Simon Fraser. Now Lecturer at Imperial College London)
Hamed Seyed-Allaei	(PhD from SISSA. Now researcher at School of Cognitive Sciences, Iran)
Samira Hezaveh	(PhD from Jacobs Univ. Now postdoc at Darmstadt)
Niloufar Faghihi	(PhD from Univ. Western Ontario. Now postdoc at Sharif)
Hassan Pezeshki	(PhD from EPFL)
Ehsan Irani	(PhD from Univ. of Gottingen)
Hengameh Shams	(PhD from Univ. of California, Berkeley)
Mohammad Saber Naderi	(PhD from Eindhoven Univ. of Tech.)

Hamed Mortazavi	(PhD from Eindhoven University of Tech.)
Azadeh Maleknezhad	(PhD from Alzahra Univ.)
Majid Mosayebi	(PhD from ETH Zurich. Now postdoc at Oxford)
Golnoush Bizhani	(PhD from Univ. of Calgary)
Mona Habibi	(PhD from the Univ. of Western Ontario, now postdoc at UBC)
Mehran Djalali	(Present PhD candidate at Max Planck Institute)
Somayeh Farhadi	(PhD from Duke Univ.)
Javad Noorbakhsh	(PhD from Boston Univ.)
Amir Kargaran	
Bahareh Amini	
Zahra Zahedi	
Maliheh Emadinezhad	
M.K. Saeed-Ghalati	(Present PhD candidate at University of Duisburg-Essen, Germany)
Halimeh Moharamkhani	(Present PhD candidate at Tehran University)
Reza Seyednejad	(Present PhD candidate at IASBS, Zanjan)
Maziar Heidary	(PhD from Max Planck Institute, Now postdoc at Paris)
Vahid Satarifard	(Present PhD candidate at Max Planck Institute)
Setareh Dolati	(Present PhD candidate at Max Delbrück Center for Molecular Medicine)
Zahra Ahmadian	(Present PhD candidate at Sharif University of Technology)
Ehsan Nikbin	
Jalal Tarighat-Asghar	
Zeinab Aghajani	
Tiam Heydari	(Present PhD candidate at UBC, Canada)
Not listed after 2015	

Publications:
Peer reviewed journals

Title / Author / Source	Year
Effects of linking topology on the shear response of connected ring polymers: Catenanes and bonded rings flow differently RA Farimani, ZA Dehaghani, CN Likos, MR Ejtehadi Physical Review Letters 132 (14), 148101 (Highlighted as Editor's Suggestion)	2024
In silico study of the impact of oxidation on pyruvate transmission across the hVDAC1 protein channel M Rezaei, M Ghasemitarei, J Razzokov, M Yusupov, M Ghorbanalilu, ... Archives of Biochemistry and Biophysics 751, 109835	2024
Nanocars assembly on surface: coarse-grained molecular dynamics study M Vaezi, H Nejat, MR Ejtehadi Sharif Journal of Mechanical Engineering	2024
Electrochromic Sensor Augmented with Machine Learning for Enzyme-Free Analysis of Antioxidants S Ranjbar, AH Salavati, N Ashari Astani, N Naseri, N Davar, MR Ejtehadi ACS sensors 8 (11), 4281-4292	2023
Molecular mechanism of glycosylated IL-1RII counteraction with IL-1RI in regulation of the immune response N Jamshidi Khameneh, M Azimzadeh Irani, MR Ejtehadi Molecular Simulation 49 (16), 1491-1501	2023
Aptamer affinity to P53 DBD: A molecular dynamics study M Atabay, MR Ejtehadi Journal of Molecular Structure 1284, 135355	2023
Dynamics of fluid bilayer vesicles: Soft meshes and robust curvature energy discretization A Farnudi, MR Ejtehadi, R Everaers Physical Review E 108 (1), 015301	2023

Counterintuitive properties of evolutionary measures: A stochastic process study in cyclic population structures with periodic environments H Nemati, K Kaveh, MR Ejtehadi Journal of Theoretical Biology 564, 111436	2023
Programmable transport of C60 by straining graphene substrate M Vaezi, H Nejat Pishkenari, MR Ejtehadi Langmuir 39 (12), 4483-4494	2023
Electrochemical and Computational Studies of Bio-mimicked Ti3C2Tx MXene-based Sensor with Multivalent Interface S Ranjbar, NA Astani, M Atabay, N Naseri, A Esfandiar, MR Ejtehadi Journal of Colloid and Interface Science	2022
Glycan-mediated functional assembly of IL-1RI: Structural insights into completion of the current description for immune response M Azimzadeh Irani, MR Ejtehadi Journal of Biomolecular Structure and Dynamics 40 (6), 2575-2585	2022
Conformation-and phosphorylation-dependent electron tunnelling across self-assembled monolayers of tau peptides AA Ashkarran, A Hosseini, R Loloee, G Perry, KB Lee, M Lund, ... Journal of Colloid and Interface Science 606, 2038-2050	2022
Electronic polarization effects on membrane translocation of anti-cancer drugs AN Hosseini, M Lund, MR Ejtehadi Physical Chemistry Chemical Physics 24 (20), 12281-12292	2022
Collective movement and thermal stability of fullerene clusters on the graphene layer M Vaezi, HN Pishkenari, MR Ejtehadi Physical Chemistry Chemical Physics 24 (19), 11770-11781	2022
A modified Jarzynski free-energy estimator to eliminate non-conservative forces and its application in nanoparticle–membrane interactions AN Hosseini, M Lund, MR Ejtehadi Physical Chemistry Chemical Physics 24 (6), 3647-3654	2022
Effect of cysteine oxidation in SARS-CoV-2 receptor-binding domain on its interaction with two cell receptors: Insights from atomistic simulations M Ghasemitarei, A Privat-Maldonado, M Yusupov, S Rahnama, ... Journal of chemical information and modeling 62 (1), 129-141	2021
S494 O-glycosylation site on the SARS-CoV-2 RBD affects the virus affinity to ACE2 and its infectivity; a molecular dynamics study S Rahnama, M Azimzadeh Irani, M Amininasab, MR Ejtehadi Scientific Reports 11 (1), 1-13	2021
Impact of temporal correlations on high risk outbreaks of independent and cooperative SIR dynamics S Sajjadi, MR Ejtehadi, F Ghanbarnejad Plos one 16 (7), e0253563	2021
Monte Carlo simulation of a lattice model for the dynamics of randomly branching double-folded ring polymers E Ghobadpour, M Kolb, MR Ejtehadi, R Everaers Physical Review E 104 (1), 014501	2021
Chaotic dynamics of active topological defects A Hashemi, MR Ejtehadi Soft Materials 19 (3), 316-322	2021
Structural and dynamical fingerprints of the anomalous dielectric properties of water under confinement I Ahmadabadi, A Esfandiar, A Hassanali, MR Ejtehadi Physical Review Materials 5 (2), 024008	2021
Locomotion of the C60-based nanomachines on graphene surfaces SM Mofidi, H Nejat Pishkenari, MR Ejtehadi, AV Akimov Scientific reports 11 (1), 1-11	2021
Nanoscale characterization of the biomolecular corona by cryo-electron microscopy, cryo-electron tomography, and image simulation S Sheibani, K Basu, A Farnudi, A Ashkarran, M Ichikawa, JF Presley, ... Nature communications 12 (1), 1-9	2021
Molecular Machinery Responsible for Graphene Oxide's Distinct Inhibitory Effects toward *Pseudomonas aeruginosa* and *Staphylococcus aureus* Pathogens N Ashari Astani, F Najafi, A Maghsoumi, K Huma, L Azimi, A Karimi, ...	2020

ACS Applied Bio Materials 4 (1), 660-668	
Thermal conductivity of the cell membrane in the presence of cholesterol and amyloid precursor protein N Rafieiolhosseini, MR Ejtehadi Physical Review E 102 (4), 042401	2020
The hot sites of α-synuclein in amyloid fibril formation A Khammari, SS Arab, MR Ejtehadi Scientific reports 10 (1), 1-14	2020
Effects of topological constraints on linked ring polymers in solvents of varying quality ZA Dehaghani, I Chubak, CN Likos, MR Ejtehadi Soft Matter 16 (12), 3029-3038	2020
Role of Graphene Surface Ripples and Thermal Vibrations in Molecular Dynamics of C60 SM Mofidi, H Nejat Pishkenari, MR Ejtehadi, AV Akimov The Journal of Physical Chemistry C	2019
Ruddlesden–Popper Phases of Methylammonium-Based Two-Dimensional Perovskites with 5-Ammonium Valeric Acid AVA2MAn–1PbnI3n+1 with n = 1, 2 … N Ashari-Astani, F Jahanbakhshi, M Mladenovic, AQM Alanazi, MR Ejtehadi, … The journal of physical chemistry letters 10 (13), 3543-3549	2019
GAG Positioning on IL-1RI; a Mechanism Regulated by Dual Effect of Glycosylation MA Irani, MR Ejtehadi Glycobiology	2019
Mechanistic Understanding of the Interactions between Nano-Objects with Different Surface Properties and α-Synuclein H Mohammad-Beigi, A Hosseini, M Adeli, MR Ejtehadi, G Christiansen, ... ACS nano 13 (3), 3243-3256	2019
Molecular interaction of fibrinogen with zeolite nanoparticles H Derakhshankhah, A Hosseini, F Taghavi, S Jafari, A Lotfabadi, ... Scientific reports 9 (1), 1558	2019
Bare surface of gold nanoparticle induces inflammation through unfolding of plasma fibrinogen B Kharazian, SE Lohse, F Ghasemi, M Raoufi, AA Saei, F Hashemi, ... Scientific reports 8 (1), 125572	2018
Virtual cell simulator MR Ejtehadi, M Heidari, T Heydari, M Mahmoudi US Patent App. 15/915,044	2018
Engineering of Mature Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes Using Substrates with Multiscale Topography PPSS Abadi, JC Garbern, S Behzadi, MJ Hill, JS Tresback, T Heydari, ... Advanced Functional Materials 28 (19) 6	2018
Molecular Dynamics Simulations of Orai Reveal How the Third Transmembrane Segment Contributes to Hydration and Ca2+ Selectivity in Calcium Release … A Alavizargar, C Berti, MR Ejtehadi, S Furini The Journal of Physical Chemistry B 122 (16), 4407-4417 5	2018
Topology of polymer chains under nanoscale confinement V Satarifard, M Heidari, S Mashaghi, SJ Tans, MR Ejtehadi, A Mashaghi Nanoscale 9 (33), 12170-12177	2017
Calcium chloride adsorption at liquid-liquid interfaces: A molecular dynamics simulation study NP Khiabani, A Bahramian, P Chen, P Pourafshary, WA Goddard, ... Colloids and Surfaces A: Physicochemical and Engineering Aspects 527, 70-80	2017
Development of a Virtual Cell Model to Predict Cell Response to Substrate Topography T Heydari, M Heidari, O Mashinchian, M Wojcik, K Xu, MJ Dalby, ... ACS nano	2017
Fractal nematic colloids SM Hashemi, U Jagodič, MR Mozaffari, MR Ejtehadi, I Muševič, M Ravnik Nature communications 8, 14026	2017
Topology of internally constrained polymer chains M Heidari, V Satarifard, SJ Tans, MR Ejtehadi, S Mashaghi, A Mashaghi Physical Chemistry Chemical Physics	2017
Gaussian theory for spatially distributed self-propelled particles	2016

H Seyed-Allaei, L Schimansky-Geier, MR Ejtehadi Physical Review E 94 (6), 062603	
Understanding the nanoparticle–protein corona complexes using computational and experimental methods B Kharazian, NL Hadipour, MR Ejtehadi The international journal of biochemistry & cell biology 75, 162-174	2016
Active Brownian particles and run-and-tumble particles separate inside a maze M Khatami, K Wolff, O Pohl, MR Ejtehadi, H Stark Scientific Reports 6	2016
OmpF, a nucleotide-sensing nanoprobe, computational evaluation of single channel activities RH Abdolvahab, H Mobasheri, A Nikouee, MR Ejtehadi Physica A: Statistical Mechanics and its Applications 457, 215-224	2016
Electrical bending instability in electrospinningvisco-elastic solutions SP Shariatpanahi, D Bonn, MR Ejtehadi, AI Zad Journal of Polymer Science Part B: Polymer Physics 54 (11), 1036-1042	2016
Vortex with fourfold defect lines in a simple model of self-propelled particles H Seyed-Allaei, MR Ejtehadi Physical Review E 93 (3), 032113	2016
Different buckling regimes in direct electrospinning: A comparative approach to rope buckling SP Shariatpanahi, Z Etesami, D Bonn, MR Ejtehadi Journal of Polymer Science Part B: Polymer Physics 54 (4), 451-456	2016
Stiffer double-stranded DNA in two-dimensional confinement due to bending anisotropy H Salari, B Eslami-Mossallam, HF Ranjbar, MR Ejtehadi Physical Review E 94 (6), 062407	2016
Diffusion and self-assembly of C60 molecules on monolayer graphyne sheets M Ozmaian, A Fathizadeh, M Jalalvand, MR Ejtehadi, SMV Allaei Scientific reports 6	2016
Low-Reynolds-number predator M Ebrahimian, M Yekehzare, MR Ejtehadi Physical Review E 92 (6), 063035	2015
Extreme bendability of DNA double helix due to bending asymmetry H Salari, B Eslami-Mossallam, MS Naderi, MR Ejtehadi J. Chem. Phys. 143, 104904	2015
Cooperation within von Willebrand factors enhances adsorption mechanism M Heidari, M Mehrbod, MR Ejtehadi, MRK Mofrad Journal of The Royal Society Interface 12 (109), 20150334, 2015	2015
Equilibrium state of a cylindrical particle with flat ends in nematic liquid crystals SM Hashemi, MR Ejtehadi Physical Review E 91 (1), 012503, 2015	2015
Investigation of Salts Behavior at Liquid-Liquid Interfaces NP Khiabani, A Bahramian, M Soltani, P Pourafshary, K Sarikhani, ... Interdisciplinary Topics in Applied Mathematics, Modeling and Computational, 2015	2015
Molecular Dynamics Simulation of Supercoiled DNA Rings A Fathizadeh, H Schiessel, MR Ejtehadi Macromolecules 48 (1), 164-172, 2014	2014
Polyelectrolytes polarization in nonuniform electric fields F Farahpour, MR Ejtehadi, F Varnik International Journal of Modern Physics C 25 (12), 1441010, 2014	2014
Cell-Imprinted Substrates Act as an Artificial Niche for Skin Regeneration O Mashinchian, S Bonakdar, H Taghinejad, V Satarifard, M Heidari, ... ACS applied materials & interfaces 6 (15), 13280-13292, 2014	2014
Particle selection through topographic templates in nematic colloids Z Eskandari, NM Silvestre, MMT da Gama, MR Ejtehadi Soft matter 10 (48), 9681-9687	2014
Gating and conduction of nano-channel forming proteins: a computational approach AB Besya, H Mobasheri, MR Ejtehadi Journal of Biomolecular Structure and Dynamics 31 (8), 818-828	2013

Confinement dynamics of a semiflexible chain inside nano-spheres A Fathizadeh, M Heidari, B Eslami-Mossallam, MR Ejtehadi The Journal of chemical physics 139 (4), 044912	2013
Confined nematic liquid crystal between two spherical boundaries with planar anchoring SR Seyednejad, MR Mozaffari, MR Ejtehadi Physical Review E 88 (1), 012508	2013
Temperature: The “Ignored” Factor at the NanoBio Interface M Mahmoudi, AM Abdelmonem, S Behzadi, JH Clement, S Dutz, ... ACS nano 7 (8), 6555-6562	2013
Nanomechanical properties of lipid bilayer: Asymmetric modulation of lateral pressure and surface tension due to protein insertion in one leaflet of a bilayer N Maftouni, M Amininasab, MR Ejtehadi, F Kowsari, R Dastvan The Journal of Chemical Physics 138, 065101	2013
Rigid-body molecular dynamics of DNA inside a nucleosome A Fathizadeh, AB Besya, MR Ejtehadi, H Schiessel The European Physical Journal E 36 (3), 1-10	2013
Chain deformation in translocation phenomena F Farahpour, A Maleknejad, F Varnik, MR Ejtehadi Soft Matter 9 (9), 2750-2759	2013
Physiological Temperature Has Crucial Role in Amyloid Beta in the Absence and Presence of Hydrophobic and Hydrophilic Nanoparticles M Ghavami , M Rezaei , MR Ejtehadi , M Lotfi , MA Shokrgozar , B AbdeEmamy , M Mahmoudi ACS Chem. Neurosci., Just Accepted Manuscript, DOI: 10.1021/cn300205g	2012
Definition of the persistence length in the coarse-grained models of DNA elasticity A Fathizadeh, B Eslami-Mossallam, MR Ejtehadi Physical Review E 86 (5), 051907	2012
A Molecular Dynamics Simulation Study of Nanomechanical Properties of Asymmetric Lipid Bilayer N Maftouni, M Amininasab, M Vali, M Ejtehadi, F Kowsari Journal of Membrane Biology, DOI10.1007/s00232-012-9505-8	2012
Gating and conduction of nano-channel forming proteins: a computational approach AB Besya, H Mobasheri, MREjtehadi J BiomolStructDyn: Aug 28. [Epub ahead of print]	2012
Interdisciplinary challenges and promising theranostic effects of nanoscience in Alzheimer's disease S Laurent, MR Ejtehadi, M Rezaei, PG Kehoe, M Mahmoudi RSC Advances 2, 5008-5033	2012
Rotational regimes of freely suspended liquid crystal films under electric current in presence of an external electric field R Shirsavar, A Amjadi, MR Ejtehadi, MR Mozaffari, MS Feiz Microfluidics and Nanofluidics 13, 83-89	2012
First passage time distribution of chaperone driven polymer translocation through a nanopore: Homopolymer and heteropolymer cases RH Abdolvahab, R Metzler, MR Ejtehadi JCP: BioChemical Physics 5 (12), 12B619-12B619	2011
Micro helical polymeric structures produced by variable voltage direct electrospinning SP Shariatpanahi, I Abdollahzadeh, R Shirsavar, D Bonn, R Ejtehadi Soft Matter 7 (22), 10548-10551	2011
Protein-Nanoparticle Interactions: Opportunities and Challenges. M Mahmoudi, I Lynch, MR Ejtehadi, MP Monopoli, FB Bombelli, S Laurent Chemical reviews 111 (9), 5610-5637	2011
Directed motion of C_ {60} on a graphene sheet subjected to a temperature gradient A Lohrasebi, M Neek-Amal, MR Ejtehadi Physical Review E 83 (4), 042601	2011
Contribution of nonlocal interactions to DNA elasticity B Eslami-Mossallam, MR Ejtehadi The Journal of chemical physics 134, 125106	2011

Electrically rotating suspended films of polar liquids R Shirsavar, A Amjadi, A Tonddast-Navaei, MR Ejtehadi Experiments in Fluids 50, 419-428	2011
Sequence dependence of the binding energy in chaperone-driven polymer translocation through a nanopore RH Abdolvahab, MR Ejtehadi, R Metzler Physical Review E 83 (1), 011902	2011
Interaction of spherical colloidal particles in nematic media with degenerate planar anchoring MR Mozaffari, M Babadi, J Fukuda, MR Ejtehadi Soft Matter	2010
Diffusive motion of C_ {60} on a graphene sheet M Neek-Amal, N Abedpour, SN Rasuli, A Naji, MR Ejtehadi Physical Review E 82 (5), 051605	2010
Simulation of droplet trains in microfluidic networks MD Behzad, H Seyed-Allaei, MR Ejtehadi Physical Review E 82 (3), 037303	2010
Membrane interactions control residue fluctuations of outer membrane porins AB Besya, H Mobasheri, MR Ejtehadi Physical Review E 81 (5), 051911	2010
A liquid film motor A Amjadi, R Shirsavar, NH Radja, MR Ejtehadi Microfluidics and nanofluidics 6 (5), 711-715	2009
Mechanism of water permeation through modified carbon nanotubes as a model for peptide nanotube channels A Alizadeh, GA Parsafar, MR Ejtehadi International Journal of Nanotechnology 6 (10), 926-941	2009
Asymmetric Elastic Rod Model for DNA B Eslami-Mossallam, MR Ejtehadi Physical Review E 80, 011919	2009
Effective potential of longitudinal interactions between microtubule protofilaments M Neek-Amal, NH Radja, MR Ejtehadi Physical Review E 78 (1), 011912	2008
Stretching an anisotropic DNA B Eslami-Mossallam, MR Ejtehadi The Journal of chemical physics 128, 125106	2008
Energy-landscape networks of spin glasses H Seyed-Allaei, H Seyed-Allaei, MR Ejtehadi Physical Review E 77 (3), 031105	2008
An exact treatment of ellipsoid-substrate interactions M Babadi, MR Ejtehadi EPL (Europhysics Letters) 77, 23002	2007
Analytical first derivatives of the RE-squared interaction potential M Babadi, MR Ejtehadi, R Everaers Journal of Computational Physics 219 (2), 770-779	2006
Coarse-grained interaction potentials for anisotropic molecules M Babadi, R Everaers, MR Ejtehadi The Journal of chemical physics 124, 174708	2006
Conservation of statistical results under the reduction of pair-contact interactions to solvation interactions NH Radja, RR Farzami, MR Ejtehadi Physical Review E 72 (6), 061915	2005
Protein folding rates correlate with heterogeneity of folding mechanism B Öztop, MR Ejtehadi, SS Plotkin Physical review letters 93 (20), 208105	2004
Three-body interactions improve the prediction of rate and mechanism in protein folding models MR Ejtehadi, SP Avall, SS Plotkin PNAS 101 (42), 15088	2004

Modeling DNA structure, elasticity, and deformations at the base-pair level B Mergell, MR Ejtehadi, R Everaers Physical Review E 68 (2), 021911	2003
Interaction potentials for soft and hard ellipsoids R Everaers, MR Ejtehadi Physical Review E 67 (4), 041710	2003
Rigid-body formalism for simulating macromolecules MR Ejtehadi, R Everaers Computer physics communications 147 (1-2), 339-341	2002
Statistical mechanics of triangulated ribbons B Mergell, MR Ejtehadi, R Everaers Physical Review E 66 (1), 011903	2002
Geometry selects highly designable structures V Shahrezaei, MR Ejtehadi The Journal of Chemical Physics 113, 6437	2000
A history-dependent stochastic predator-prey model: Chaos and its elimination R Gerami, MR Ejtehadi The European Physical Journal B-Condensed Matter and Complex Systems 13 (3), 601-606	2000
A HISTORY-DEPENDENT MODEL FOR PREDATOR-PREY PROBLEM R GERAMI, MR EJTEHADI Annual Reviews of Computational Physics 8, 321-328	2000
Global Results in Space of Inter-Monomer Interactions for HP Lattice Model MR EJTEHADI, V SHAHREZAEI, N HAMEDANI Turk. J. Phys 24, 277-294	2000
Protein ground state candidates in a simple model: An enumeration study V Shahrezaei, N Hamedani, MR Ejtehadi Physical Review E 60 (4), 4629	1999
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