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Education

- 2008–2013 **PhD**, *Sharif University of Technology*, GPA – 18.13/20.
Mechanical Engineering: Applied Mechanics
- 2005–2008 **MSc**, *Sharif University of Technology*, GPA – 17.77/20.
Mechanical Engineering: Biomechanics
- 2001–2005 **BSc**, *Sharif University of Technology*, GPA – 17.7/20.
Mechanical Engineering
- 2001–2005 **BSc**, *Sharif University of Technology & Petroleum University of Technology*, GPA – 17.4/20.
Petroleum Engineering: Reservoir Engineering

Positions

- 2014–Present **Researcher**, *Reservoir Engineering Research Institute*, Palo Alto, CA.
- 2013–2014 **Research Fellow**, *CEDRA at Sharif University of Technology*, Tehran, Iran.
- 2013–2014 **Lecturer**, *Sharif University of Technology*, Tehran, Iran.
- 2010–2011 **Visiting Student Research Collaborator**, *Princeton University*, Princeton, NJ.
- Fall 2007 **Visiting Student**, *Forschungszentrum Jülich*, Germany.

Computer skills

C++, Fortran, R, MATLAB, Python, Maple, \LaTeX , Microsoft Office, Linux (Ubuntu, Red Hat), Mac OS X, Microsoft Windows, Gnuplot, Tecplot, POV-Ray, VMD, LAMMPS

Research Interests

- * Complex Fluids: Biomembranes, Suspensions & Microemulsions
- * Shale & Nano-scale Porous Media
- * Thermodynamic Modeling & Molecular Dynamics Simulations
- * Computational & Numerical Analysis
- * Instability & Perturbation Analysis

Journal Papers

A. Khoshnood, B. Lukanov, A. Firoozabadi, Temperature effect on micelle formation: molecular thermodynamic model revisited, submitted.

M.A. Jalali, **A. Khoshnood**, M.-R. Alam, Microswimmer-induced chaotic mixing, *Journal of Fluid Mechanics*, 779, 669–683 (2015).

A. Khoshnood, A. Firoozabadi, Polar solvents trigger formation of reverse micelles, *Langmuir*, 31, 5982–5991 (2015).

A. Khoshnood, M.A. Jalali, Anomalous diffusion of proteins in sheared lipid membranes, *Physical Review E.*, 88, 032705 (2013)

A. Khoshnood, M.A. Jalali, Long-lived and unstable modes of Brownian suspensions in microchannels, *Journal of Fluid Mechanics*, 701, 407–418 (2012).

A. Khoshnood, H. Noguchi, G. Gompper, Lipid membranes with transmembrane proteins in shear flow, *Journal of Chemical Physics*, 132, 025101 (2010).

On the **cover of J. Chem. Phys.**, featured by JCP: BioChemical Physics, 4, 1 (2010) and published online by Virtual Journal of Biological Physics Research, 419, 2 (2010).

A. Khoshnood, M.A. Jalali, Normal oscillatory modes of rotating orthotropic disks, *Journal of Sound and Vibration*, 314 (2008).

Some mode shapes been displayed on **Wolfram Demonstrations Project**: <http://demonstrations.wolfram.com/NormalOscillatoryModesOfRotatingOrthotropicDisks/>

Conference Papers

A. Khoshnood, M.A. Jalali, Dynamical properties of lipid membrane with embedded proteins in shear flow, Dynamics Days Europe 2012, Gothenburg, Sweden, Sept 2-7, 2012.

M.A. Jalali, **A. Khoshnood**, Stochastic oscillations in hard disk drives, The 8th seminars of differential equations, dynamical systems and their applications, Isfahan, Iran, July 19-21, 2008.

H. Pendar, G. Vossoughi, **A. Khoshnood**, A. Poursamad, Assisted Passive Snake Robots: Conception and Dynamic Modeling Using Kane Method, ASME International Mechanical Engineering Congress and Exhibition, Orlando, Florida, USA, November 5-11, 2005.

Poster Presentations

H. Jafarinia, **A. Khoshnood**, M.A. Jalali, M.T. Ahmadian, "Effect of hydrophobic mismatch and rigidity of proteins on the cluster formation of transmembrane proteins in biomembranes.", Forschungszentrum Jülich, October 2014.

A. Khoshnood, M.A. Jalali, "Long-lived and Unstable Modes of Brownian Suspension in microchannels " Forschungszentrum Jülich, March 2012.

A. Khoshnood, H. Noguchi, G. Gompper, "Lipid Membranes with Transmembrane Proteins in Shear Flow", Tokyo University, August 2010.

Awards & Achievements

- 2009–2012 Research Assistantship from Sharif University of Technology
 - 2012 Travel Fellowship from Forschungszentrum Jülich
 - 2012 Travel Fellowship from Gothenburg University
 - 2010 Travel Fellowship from Tokyo University
- 2008–2009 Talented Students Fellowship from Sharif University of Technology
 - 2005 Ranked top 10 among 135 BSc Students of Mechanical Engineering at Sharif University of Technology
- 2003–2005 Fellowship of National Iranian Oil Company
 - 2001 Ranked 149th in the entrance exam for Iranian universities among 400,000 examinees

Languages

- Persian Native
- English Full professional proficiency
- Arabic Elementary proficiency
- Turkish Elementary proficiency