周吕文

个人简历

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中共党员
男，汉，19xx 年 x 月生

教育背景

2006–2010 **大连大学**，物理科学与技术学院，物理学，本科.
2011–2017 **中国科学院力学研究所**，工程力学，博士.

计算机技术

操作系统 **Linux, Windows**.
编程语言 **MatLab (精通), Fortran (精通), Python (熟悉), C/C++ (熟悉)**.
模型算法 **元胞自动机、分子动力学、格子玻尔兹曼、图论、模拟退火、遗传算法等**.

经历

社团经历

2008–2010 **大连大学数学建模工作室学生负责人**.

科研项目

2011-2013 **健康/癌变乳腺细胞微流道内迁移动力学模拟**.
2014-2015 **重力矢量导向作用下动物细胞力学稳定性重建的理论建模**.
2016-2017 **力学-化学模型构建及其在白细胞极化，变形与迁移**.

竞赛指导

2011-2017 **全国大学生数学建模竞赛**，指导多位学生获得一等奖，包含一个 Matlab 创新奖.
2011-2017 **美国大学生数学建模竞赛**，指导多位学生获得一等奖，包含一个 F 奖.

书籍编写

2015 《**大学生数学建模竞赛指南**》，电子工业出版社，参与策划和编写，并任副主编.

部分奖励

2011-2016 **中国科学院大学三好学生**，分别于 *2011-2012, 2012-2013, 2015-2016* 三次获得.
2010 **大连大学十佳创新大学生**，全校每年只评出十名.
2010 **美国大学生数学建模大赛**，一等奖，参赛队队长.
2009 **大连市高等数学竞赛**，一等奖.
2008 **“挑战杯”全国大学生创业计划大赛**，省二等奖，团队负责人.
2008-2009 **大连市政府奖学金**.
2006-2009 **大连大学创新奖学金**，连续三年获得.
2005 **全国中学生奥林匹克物理竞赛**，省级二等奖.

发表论文

[1] C. Zhang, **L. Zhou**, F. Zhang, D. Lü, N. Li, L. Zheng, Y. Xu, Z. Li, S. Sun, and M. Long, "Mechanical remodeling of normally sized mammalian cells under a gravity vector," *The FASEB Journal*, vol. 31, no. 2, pp. 802–813, 2017.

[2] D. Lü, **L. Zhou**, and M. Long, "Biomechanics of stem cells," *Advances in Mechanics*, vol. 47, pp. 534–585, 2017.

[3] **L. Zhou**, Y. Zhang, X. Deng, and M. Liu, "Dissipative particle dynamics simulation of flow through periodic arrays of circular micropillar," *Applied Mathematics and Mechanics*, vol. 37, no. 11, pp. 1431–1440, 2016.

[4] **L. Zhou**, Y. Zhang, X. Deng, and M. Liu, "DPD simulation of the movement and deformation of bioconcave cells," *International Journal of Computational Methods*, vol. 13, no. 04, p. 1641003, 2016.

[5] M. Liu, G. Liu, **L. Zhou**, and J. Chang, "Dissipative particle dynamics (DPD): an overview and recent developments," *Archives of Computational Methods in Engineering*, vol. 22, no. 4, pp. 529–556, 2015.

[6] **L. Zhou**, M. Liu, and J. Chang, "Movement and evolution of macromolecules in a grooved micro-channel," *Interaction and multiscale mechanics*, vol. 6, no. 2, pp. 157–172, 2013.

[7] **L. Zhou**, M. Liu, and J. Chang, "Dissipative particle dynamics simulations of macromolecules in micro-channels," *Acta Polymerica Sinica*, no. 7, pp. 720–727, 2012.

[8] **L. Zhou**, C. Zhang, F. Zhang, S. Lü, S. Sun, D. Lü, and M. Long, "Theoretical modeling of mechanical homeostasis of a mammalian cell under gravity-directed vector," *Biomechanics and Modeling in Mechanobiology*, pp. 1–13, 2017.

[9] S. Feng, **L. Zhou (co-first author)**, Y. Zhang, S. Lü, and M. Long, "Mechano-chemical modeling of neutrophil migration based on bidirectional molecular transport mechanism," *Biophysical Journal*, 2017. (**Submitted**).

[10] S. Feng, **L. Zhou (co-first author)**, Y. Zhang, S. Lü, and M. Long, "A dynamic seesaw model for rapid signaling responses in eukaryotic chemotaxis," *New Journal of Physics*, 2017. (**Submitted**).

[11] X. Zhang, L. Li, N. Li, X. Shu, L. Zhou, S. Lü, S. Chen, D. Mao, and M. Long, "Salt bridge interactions within the $\beta 2$ integrin $\alpha 7$ helix mediate force-induced binding and shear resistance ability," *The FEBS journal*.