

学院概况

师资队伍

科学研究

本科生教育

研究生教育

学生动态

党建园地

校友活动

教授-研究员

当前位置: 首页 > 师资队伍 > 学院师资 > 正文

学院师资

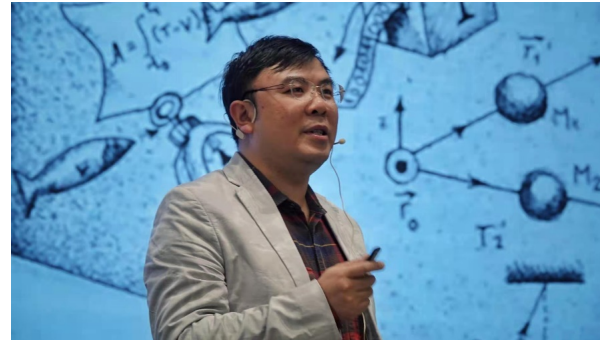
学院师资

人才引进

博士后流动站

刘雳宇

作者: 点击次数: 2716 更新时间: 2020年04月03日



简介:

1980年生于成都。2004年毕业于中国科学技术大学力学与机械工程系，获学士学位；2008年获香港科技大学纳米科学与纳米技术博士学位；之后在美国普林斯顿大学物理系工作，历任博士后研究员，讲师等职务。2012年加入中国科学院物理研究所“百人计划”，任特聘研究员，博士生导师。2015年重庆大学物理学院教授。

现为:

国家级青年人才
国家“973”青年项目首席科学家
国家级人才联谊会副秘书长
重庆市青年领军人才协会副理事长
重庆市欧美同学会副会长
重庆市政协常委

中国科学院“卢嘉锡”人才奖，东京工业大学青年科学家奖，重庆市十佳科技青年奖，重庆市物理学科带头人

实验室主页: <http://bmphys.cqu.edu.cn/index.htm>

研究方向:

1. 癌症生物物理：基于改变肿瘤微环境的癌症治疗新方法探索；
2. 微流控类器官芯片的研究与应用；
3. 自组织机器人集群，自组织集群行为涌现机理研究。

基金项目：

1. 科技部“973计划”青年科学家专题（2013CB837200）
“三维微纳米生物芯片在肝癌和大肠癌肝转移中的分子机理研究及其临床应用”
2. 自然科学基金面上项目(11604030)
“功能性弹性血管的动力学及在重大疾病研究中的应用”
3. 自然科学基金面上项目(11474345)
“3-D生物芯片中癌细胞侵袭组织的集体行为和动力学研究”
4. 北京市自然科学基金（7154221）
“数字影像分析结合3-D打印技术探索心血管FFR的体外无创诊断”
5. 自然科学基金面上项目（11974066）
“介观尺度下癌细胞侵袭取向性胶原纤维的动力学研究”

代表性论文：

- Gao W., Trung V. P., Shengkai L., Michael W., Junle Q., Yan P., Guo C., Daniel I. G., Simon A. L., Robert H. A., **L. Liu**, "Emergent Field-Driven Robot Swarm States", **Physical Review Letters** 126,108002 (2021)
- Qihui F., Yu Z., Xiaochen W., Ruipei X., Yu D., Boyi W., Xiaoyu Y., Ying L., **L. Liu**, Yunliang L., Ming L., Yuanjin Z., Yang J., Fangfu Y, "Dynamically re-organized collagen fiber bundles transmit mechanical signals and induce strongly correlated cell migration and self-organization", **Angew. Chem. Int. Ed.** DOI:https://doi.org/10.1002/anie.202016084 (2021)
- Y. Lv, G. Li, H. Peng, Y. Liu, J. Yao, G. Wang, J. Sun, J. Liu, H. Zhang, G. Chen, **L. Liu**, "Development of elastic artificial vessels with a digital pulse flow system to investigate the risk of restenosis and vasospasm", **Lab on a Chip** 20(16):3051-3059(2020)
- J. Sun, L. Zhang, L. Cui, X. Luo, G. He, X. Dong, L. He, J. Zhang, J. Sun, G. Chen, Y. Lv, **L. Liu**, "Gestational age estimation from ultrasound fetal biometrics in China", **Clin. Exp. Obstet. Gynecol** 47(5): 714-722(2020)
- J. Zheng, Y. Cheng, Y. Huang, S. Wang, **L. Liu**, G. Chen, "Drop impacting on a surface with adjustable wettability based on the dielectrowetting effect", **Phys. Fluids** 32, 097108 (2020)
- G. Chen, J. Zheng, **L. Liu**, L. Xu, "Application of Microfluidics in Wearable Devices", **Small Methods** 1900688 (2019)
- Y. He, L. Xiong, X. Gao, M. Hai, Y. Liu, G. Wang, G. Chen, J. Shuai, Y. Jiao, X. Zhang, R. Liu, **L. Liu**, "Morphological quantification of proliferation-to-invasion transition in tumor spheroids", **BBA - General Subjects** 1864(2019)129460
- Y. Zheng, H. Nan, Y. Liu, Q. Fan, X. Wang, R. Liu, **L. Liu**, "Modeling cell migration regulated by cell extracellular-matrix micromechanical coupling", **Physical Review E** 100(2019) 043303
- R. Liu, K. Song, Z. Hu, W. Cao, J. Shuai, S. Chen, H. Nan, Y. Zhen, X. Jiang, H. Zhang, W. Han, Y. Liao, J. Qu, Y. Jiao, Jing Fan, **L. Liu**, "Diversity of collective migration patterns of invasive breast cancer cells emerging during microtrack invasion", **Physical Review E** 99, 062403 (2019)
- W. Diao, X. Tong, C. Yang, F. Zhang, C. Bao, C. Hao, **L. Liu**, M. Li, F. Ye, Q. Fan, J. Wang, Z. Ou-Yang, "Behaviors of glioblastoma cells in in vitro microenvironments", **Scientific Reports** 9:85(2019)
- Y. Wu, W. Chen, Z. Wan, A. Djuricic, X. Feng, **L. Liu**, G. Chen, R. Liu, Z. He, "Multifunctional atomic force probes for Mn²⁺-doped perovskite solar cells", **Journal of Power Sources** 425(2019) 130-137 (2019)
- A. Wu, D. Liao, V. Kirilin, K. Lin, G. Torga, J. Qu, **L. Liu**, J. Sturm, K. Pienta, R. Austin, "Cancer dormancy and criticality from a game theory perspective", **Cancer Convergence** DOI 10.1186/s41236-018-0008-0 (2018)
- H. Xie, Y. Jiao, Q. Fan, M. Hai, J. Yang, Z. Hu, Y. Yang, J. Shuai, G. Chen, R. Liu, **L. Liu**, "Modeling three-dimensional invasive solid tumor growth in heterogeneous microenvironment under chemotherapy", **Plos One** 13(10): e0206292 (2018)
- Y. Wu, W. Chen, Y. Lin, B. Tu, Z. Wu, R. Liu, **L. Liu**, A. Djuricic, Z. He, "General Method To Define the Type of Carrier Transport Materials for Perovskite Solar Cells via Kelvin Probes Microscopy", **ACS Appl. Energy Mater.** 1,3984-3991 (2018)

- Y. Wu, W. Chen, G. Chen, **L. Liu**, Z. He, R. Liu, "The Impact of Hybrid Compositional Film/Structure on Organic-Inorganic Perovskite Solar Cells" , **Nanomaterials** 8(6) doi: 10.3390/nano8060356 (2018)
- H. Nan, L. Liang, G. Chen, **L. Liu**, R. Liu, Y. Jiao, "Realizations of highly heterogeneous collagen networks via stochastic reconstruction for micromechanical analysis of tumor cell invasion", **Physical Review E** 97 (3)033311 (2018)
- K. Song, Z. Wang, R. Liu, G. Chen, **L. Liu**, "Microfabrication-Based Three-Dimensional (3-D) Extracellular Matrix Microenvironments for Cancer and Other Diseases", **International Journal of Molecular Science** 19(4) doi:10.3390/ijms19040935 (2018)
- K. Song, Y. Wu, X. Chen, Y. He, **L. Liu**, G. Chen, R. Liu, "SKPM study on organic-inorganic perovskite materials", **AIP Advances** 8 (3) 0351114 (2018)
- Y. Liu, X. Zhang, Y. Wu, W. Liu, X. Li, R. Liu, **L. Liu**, J. Shuai, "Derivation of persistent time for anisotropic migration of cells", **Chin. Phys. B** Vol.26, No. 12 (2017) 128707 (2017)
- Q. Fan, R. Liu, Y. Jiao, C. Tian, James D. Farrell, X. Wang, F. Zhang, W. Yuan, H. Han, J. Chen, Y. Yang, X. Zhang, F. Ye, M. Li, Z. Ouyang, and **L. Liu**, "A novel 3-D bio-microfluidic system mimicking in vivo heterogeneous tumour microstructure reveals complex tumourstroma interactions", **Lab on a Chip** DOI:10.1039/C7LC00191F (2017)
- W. Han, S. Chen, W. Yuan, Q. Fan, J. Tian, X. Wang, L. Chen, X. Zhang, W. Wei, R. Liu, Junle Qu, Y. Jiao, Robert H. Austin, and **L. Liu**, "Oriented collagen fibers direct tumor cell intravasation", **Proc. Natl. Acad. Sci. USA** (2016)
- R. Liu, Y. Li, and **L. Liu**, "Single molecule fluorescence spectroscopy for quantitative biological applications", **Quantitative Biology** 177–191(2016)
- G. Wang , X. Wang , T. Liu , R. Liu , and **L. Liu**, "In vitro experimental models and their molding technology of tumor cell", **Acta. Phys. Sin.** 65,188700 (2016)
- H. Wang, J. Liu, X. Zheng, X. Rong, X. Zheng, H. Peng, Z. S. Li, M. Li, **L. Liu**, "Three-dimensional virtual surgery models for percutaneous coronary intervention (PCI) optimization strategies", **Sci. Rep.** 5,10945 (2015)
- J. Zhu, L. Liang, Y. Jiao, **L. Liu**, "Enhanced Invasion of Metastatic Cancer Cells via Extracellular Matrix Interface", **PLoS ONE** 10,1371 (2015)
- L. Liu**, G. Duclos, B. Sun, J. Lee, A. Wu, Y. Kam, E. D. Sontag, H. A. Stone, J. C. Sturm, R. A. Gatenby and R. H. Austin, "Minimization of thermodynamic costs in cancer cell invasion", **Proc. Natl. Acad. Sci. USA** 10.1073 (2013)
- L. Liu**, B. Sun, K. Aw Yong, R. Getzenberg, H. Stone and R. Austin, "Probing the invasiveness of prostate cancer cells in a 3D microfabricated landscape" , **Proc. Natl. Acad. Sci. USA** 108:6853–6856 (2011) (高亮文章)
- L. Liu**, K. Loutharback, D. Liao, D. Yeater, G. Lambert, A. Estevez-Torres, J. Sturm, R. Getzenberg and R. Austin, "A microfluidic device for continuous cancer cell culture and passage with hydrodynamic forces" , **Lab on a Chip** 10, 1807-1813 (2010)
- L. Liu**, W. Cao, J. Wu, W. Wen, D. C. Chang and P. Sheng, "Design and Integration of an All-in-One Biomicrofluidic Chip" , **Biomicrofluidics** 2,034103(2008)
- L. Liu**, S. Peng, W. Wen and P. Sheng, "Micro Thermo Indicators and Optical-Electronic Temperature Control for Microfluidic Applications" , **Appl. Phys. Lett.** 91, 093513 (2007)
- L. Liu**, S. Peng, W. Wen and P. Sheng, " Paperlike thermochromic display" , **Appl. Phys. Lett.** 90 213508 (2007)
- L. Liu**, S. Peng, X. Niu and W. Wen, "Microheater fabricated from a conducting composite" , **Appl. Phys. Lett.** 89, 223521 (2006)
- L. Liu**, X. Niu, W. Wen and P. Sheng, "Electrorheological fluid-actuated flexible platform" , **Appl. Phys. Lett.** 88, 173505 (2006)
- L. Liu**, X. Chen, X. Niu, W. Wen, and P. Sheng, "Electrorheological fluid actuated microfluidic pump" , **Appl. Phys. Lett.** 89, 083505 (2006)
- L. Liu**, X. Huang, C. Shen, Z. Liu, J. Shi, W. Wen and P. Sheng, "Parallel-field electrorheological clutch: Enhanced high shear rate performance" , **Appl. Phys. Lett.** 87, 104106 (2005)

上一条: 汪涛
下一条: 李瑾

电话: 023-65678362 传真: 023-65678362 邮编: 401331
地址: 重庆市沙坪坝区大学城南路55号重庆大学虎溪校区理科楼LE物理学院

重庆大学物理学院版权所有 Copyright © 2002 - 2010 phys.cqu.edu.cn, All Rights Reserved.