

丁阳

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研究方向

生物力学和生物在复杂环境中运动的物理原理, 生物神经与机械控制, 仿生机器人, 颗粒物质

工作经历

北京计算科学研究中心

- 力学部 特聘研究员 2015.3 至今
- 力学部 特聘副研究员 2014.5 - 2015.3

美国南加州大学 (University of Southern California)

2012.11 - 2014.5

- 航空与机械工程系 博士后 导师: Eva Kanso

美国佐治亚理工学院 (Georgia Institute of Technology)

2011.12 - 2012.11

- 物理系 博士后 导师: Daniel I. Goldman

教育背景

美国佐治亚理工学院 (Georgia Institute of Technology),

2005.8 - 2011.12

- 物理学博士

中国科学技术大学

2001.9 - 2005.6

- 物理学学士

学术论文

- [Yang Ding](#), Janna C. Nawroth, Margaret J. McFall-Ngai and Eva Kanso, Mixing and transport by ciliary carpets: a numerical study, *Journal of Fluid Mechanics*, 743, 124-140 (2014).
- [Yang Ding](#), Chen Li and Daniel I. Goldman, Swimming in the desert, *Physics Today*, 66(11), 68, (2013).
- [Yang Ding](#), Sarah S. Sharpe, Kurt Wiesenfeld, and Daniel I. Goldman, Emergence of the advancing neuromechanical phase in a resistive force dominated medium, *Proceedings of the National Academy of Sciences*, 110(25), 10123 (2013).
- Ross Hatton, [Yang Ding](#), Howie Choset, and Daniel I. Goldman, Geometric visualization of self-propulsion in a complex medium, *Physical Review Letters*, 110, 078101 (2013).
- Fabricio Q. Potiguar and [Yang Ding](#), Lift and drag in intruders moving through hydrostatic granular media at high speeds, *Physical Review E*, 88, 012204 (2013).
- [Yang Ding](#), Sarah S. Sharpe, Andrew Masse, Daniel Goldman, Mechanics of Undulatory Swimming in a Frictional Fluid, *Plos Computational Biology*, 8(12), e1002810 (2012) (封面).
- Sarah S. Sharpe, [Yang Ding](#), and Daniel I. Goldman, Environmental interaction influences muscle activation strategy during sand-swimming in the sandfish lizard (*Scincus scincus*), *Journal of Experimental Biology*, 216, 260 (2012).

- Yang Ding, Nick Gravish and Daniel I. Goldman, Drag induced lift in granular media, *Physical Review Letters*, 106, 028001 (2011).
- Yang Ding, Nick Gravish, Chen Li, Ryan D. Maladen, Nicole Mazouchova, Sarah S. Sharpe, Paul B. Umbanhowar, and Daniel I. Goldman, Comparative studies reveal principles of movement on and within granular media, *IMA, Workshop on Locomotion* (2011).
- Ryan D. Maladen, Yang Ding, Paul B. Umbanhowar, Adam Kamor, and Daniel I. Goldman, Mechanical models of sandfish locomotion reveal principles of high performance subsurface sand-swimming, *J. R. Soc. Interface*, 8:1332-1345 (2011) (封面).
- Ryan D. Maladen, Paul B. Umbanhowar, Yang Ding, Andrew Masse and Daniel I. Goldman, Lift control in a sand-swimming robot, *IEEE: International Conference on Robotics and Automation*, (2011).
- Ryan D. Maladen, Yang Ding, Paul B. Umbanhowar, and Daniel I. Goldman, Undulatory swimming in sand: experimental and simulation studies of a robotic sandfish, *International Journal of Robotics Research*, (2011).
- Ryan D. Maladen, Yang Ding, Paul B. Umbanhowar, Adam Kamor and Daniel I. Goldman, Biophysically inspired development of a sand-swimming robot, *Robotics: Science & Systems conference*, (2010).
- Ryan Maladen, Yang Ding, Chen Li and Daniel I. Goldman, Undulatory swimming in sand: subsurface locomotion of the sandfish lizard, *Science*, 325, 314 (2009).

获奖经历

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|---------------------------------------|------|
| • 中组部 “青年千人计划” | 2015 |
| • Amelio 卓越研究生奖学金 | 2011 |
| • SAIC-Georgia Tech 论文奖 | 2011 |
| • Robotics: Science & Systems 大会最佳论文奖 | 2010 |

科学服务

- 杂志和会议审稿人: Proceedings of the Royal Society Interface, PLOS ONE, International Conference on Automation Science and Engineering, Climbing and Walking Robots (CLAWAR) meeting, Central European Journal of Physics.
- 会议主持人: American Physical Society (APS) DFD meeting 2012; International Conference on Robotics and Automation (ICRA) 2011.
- 会议报告评委: Society for Integrative and Comparative Biology Annual Meeting, 2013; Georgia Tech Graduate Research and Innovation Conference, 2012.
- 会议委员会委员: International Program Committee of the CLAWAR conference (2014, 2015).

所属科学组织

- American Physical Society
- Society for Integrative and Comparative Biology
- Climbing and Walking Robots Association