

基本信息

性别 男
民族 汉族
籍贯 福建南靖
出生年月 1989年12月
现职位 副教授，厦门大学

学习及工作经历

2022–至今 副教授，理论物理，厦门大学.
2019–2022 博士后，理论物理，加州大学圣巴巴拉分校，美国.
合作导师: M. Cristina Marchetti教授
2015–2019 博士，理论物理，莱顿大学，荷兰.
导师: Luca Giomi教授
2012–2015 硕士，理论物理，北京师范大学
导师: 郑志刚教授
2008–2012 学士，应用物理学，北京邮电大学.

研究方向

软（活性）物质、生命物质的力学及统计力学

代表作 (*共一)

- [1] Z. You, D.J.G. Pearce, A. Sengupta, and L. Giomi, "Geometry and Mechanics of Microdomains in Growing Bacterial Colonies", *Phys. Rev. X* 8(3), 031065 (2018).
- [2] Z. You, D.J.G. Pearce, A. Sengupta, and L. Giomi, "Mono- to Multilayer Transition in Growing Bacterial Colonies", *Phys. Rev. Lett.* 123, 178001 (2019).
- [3] Z. You, A. Baskaran, and M. C. Marchetti, "Nonreciprocity as a generic route to traveling states", *Proc. Natl. Acad. Sci. U.S.A.* 117(33), 19767–19772 (2020).
- [4] Z. You, D.J.G. Pearce, and L. Giomi, "Confinement-induced Self-organization in Growing Bacterial Colonies", *Sci. Adv.* 7(4), eabc8685 (2021).
- [5] R. Adkins*, I. Kolvin*, Z. You*, S. Witthaus, M. C. Marchetti, Z. Dogic, "Dynamics of active liquid interfaces", *Science*, under review.

毕业论文

- 博士 Growth-induced self-organization in bacterial colonies (英文) .
导师: Luca Giomi教授
- 硕士 基于Couzin模型的集群行为研究
导师: 郑志刚教授
- 学士 毛细管散射的理论及应用研究 (北京邮电大学优秀学士学位论文)
导师: 蒋达娅教授

期刊论文(*共一)

- [11] F. Caballero*, Z. You*, and M. C. Marchetti, "Vorticity phase separation and defect lattices in isotropic active liquid crystals", in preparation.
- [10] S. Pokawanvit, Z Chen, Z. You, L. Angheluta, M. C. Marchetti, and M. J. Bowick, "Active nematic defects in compressible and incompressible flows", Phys. Rev. E 106(5), 054610 (2022).
- [9] R. Adkins*, I. Kolvin*, Z. You*, S. Witthaus, M. C. Marchetti, Z. Dogic "Dynamics of active liquid interfaces", Science 377 (6607), 768-772 (2022).
- [8] Z. You, D.J.G. Pearce, and L. Giomi, "Confinement-induced Self-organization in Growing Bacterial Colonies", Sci. Adv. 7(4), eabc8685 (2021).
- [7] Z. You, A. Baskaran, and M. C. Marchetti, "Nonreciprocity as a generic route to traveling states", Proc. Natl. Acad. Sci. U.S.A. 117(33), 19767–19772 (2020).
- [6] Z. You, D.J.G. Pearce, A. Sengupta, and L. Giomi, "Mono- to Multilayer Transition in Growing Bacterial Colonies", Phys. Rev. Lett. 123, 178001 (2019).
- [5] L.M. Lemma, S.J. Decamp, Z. You, L. Giomi, and Z. Dogic, "Statistical Properties of Autonomous Flows in 2D Active Nematics", Soft Matter 15, 3264 (2019).
- [4] Z. You, D.J.G. Pearce, A. Sengupta, and L. Giomi, "Geometry and Mechanics of Microdomains in Growing Bacterial Colonies", Phys. Rev. X 8(3), 031065 (2018).
- [3] Q. Xu, W. Tian, Z. You, and J. Xiao, "Multiple beam interference model for measuring parameters of a capillary", Appl. Opt. 54(22) 6948-6954 (2015).
- [2] Z. You, D. Jiang, J. Stamnes, J. Chen, and J. Xiao, "Characteristics and applications of two-dimensional light scattering by cylindrical tubes based on ray tracing", Appl. Opt. 51(35), 8341-8349 (2012).
- [1] Z. You, D. Jiang, Z. Hou, and J. Xiao, "Analysis of light scattered by a capillary to measure a liquid's index of refraction", Am. J. Phys. 80(8), 688-693 (2012).

邀请报告

- 2022 活性液-液界面的动力学, 中国物理学会秋季会议, 深圳.
- 2022 Nonreciprocity as a generic route to traveling and oscillatory states, Collective Dynamics and Networks Workshop (online), China.
- 2022 Nonreciprocity as a generic route to traveling and oscillatory states, APS March Meeting invited session, Chicago, USA.

- 2021 Activity-powered liquid-liquid interface, Seminar at Institute of Natural Sciences, Shanghai Jiao Tong University (online), China.
- 2021 Growth-induced self-organization in bacterial colonies, Colloquium: Challenges and Opportunities in Complex System and Statistical Physics (online), China.
- 2021 Nonreciprocity as a generic route to traveling and oscillatory states, KITP conference: Non-Equilibrium Universality, Santa Barbara, USA
- 2021 Theory of activity-powered interfaces, SLAAM Seminar at UC Merced, Virtual, USA.
- 2020 增殖诱发菌落自组织, 非线性科学理论与交叉研讨会(线上会议), 华中科技大学.

获奖情况

- 2019 国家优秀自费留学生奖学金
- 2014 一等奖, 第八届全国高等学校物理实验教学研讨会教学论文评比
- 2013 一等奖, 北京师范大学2012-2013研究生奖学金
- 2012 一等奖, 北京市大学生物理实验竞赛

教学经历

- 2019-至今 指导两位研究生进行科研, 加州大学圣巴巴拉分校.
- 2016-2018 助教, 软物质与生命物质理论, 莱顿大学.
- 2013-2014 助教, 普通物理, 北京师范大学.

社会服务

担任Nature Physics、Nature Nanotechnology、Physical Review Fluid等杂志审稿人。

联系人

- M. Cristina Marchetti 加州大学圣巴巴拉分校物理系, cmarchetti@ucsb.edu.
- Luca Giomi 莱顿大学洛伦兹研究所, giomi@lorentz.leidenuniv.nl.
- Daniel Pearce 日内瓦大学物理系, daniel.pearce@unige.ch.