

苏益品

浣江实验室研究员 · 浙江大学“平台百人”研究员
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现任职务

2023.05–至今	研究员	浣江实验室, 浙江诸暨, 中国
2026.04–至今	研究员	绍兴大学, 浙江绍兴, 中国

工作经历

2022.12–2023.04	Junior Researcher	意大利米兰理工大学, 米兰, 意大利
2021.05–2022.12	博士后 (导师: P Ciarletta)	意大利米兰理工大学, 米兰, 意大利
2019.12–2021.04	博士后 (导师: QM Wang)	南加利福尼亚大学, 洛杉矶, 美国
2017.10–2019.10	博士后 (导师: M Destrade)	爱尔兰国立高威大学, 高威, 爱尔兰
2017.03–2017.10	博士后 (导师: 陈伟球)	浙江大学, 杭州, 中国

教育背景

2015.09–2016.05	联培博士 (应用数学, 导师: M Destrade)	高威大学, 高威, 爱尔兰
2011.09–2016.12	博士 (固体力学, 导师: 陈伟球)	浙江大学, 浙江杭州, 中国
2007.09–2011.07	学士 (工程力学)	武汉大学, 湖北武汉, 中国

研究方向

- 智能柔性材料与结构多场耦合力学: 介电弹性体、磁活性水凝胶、纤维增强软电弹性体等;
- 有限变形、波动与振动、稳定性 (屈曲、皱曲、突跳)、后屈曲及模式竞争;
- 软体器件、传感器设计与结构健康监测, 多物理场理论与有限元计算。

学术荣誉与学术兼职

2025	入选浙江省杰出青年科学基金项目。
2023	入选国家级高层次青年人才项目 (海外)。
2023	入选中国力学学会“青年人才蓄水池”项目。
2023–至今	《应用数学和力学》青年编委。
2022–至今	《Mechanics of Advanced Materials and Structures》编委。
2021–至今	《Soft Science》青年编委。
2022	入选绍兴市“名士之乡”英才计划青年项目 B 类。
2019	入选欧盟 Horizon 2020 研究计划; 入选意大利政府青年学者培养计划。
2017	获爱尔兰政府博士后奖学金。

2014, 2016	浙江大学优秀研究生。
2015	浙江大学魏绍相奖学金。
2019	与陈伟球、Michel Destrade 教授共同担任 <i>International Journal of Non-Linear Mechanics</i> “Non-linear theory of electro- and magneto-elasticity” 特刊客座编辑。
2017–至今	为 <i>Proceedings of the Royal Society A</i> , <i>Applied Mathematics and Mechanics</i> , <i>Mechanics of Advanced Materials and Structures</i> , <i>Philosophical Transactions of the Royal Society A</i> , <i>International Journal of Solids and Structures</i> , <i>Mathematics and Mechanics of Solids</i> 等期刊审稿。

国际合作与交流

2019.06–2019.08	访问学者（合作导师：G Devillanova）	意大利巴里理工大学，巴里，意大利
2019.04–2019.06	访问学者（合作导师：P Ciarletta）	意大利米兰理工大学，米兰，意大利
2018.06–2018.09	访问学者（合作导师：G Shmuel）	以色列理工学院，海法，以色列

主持研究项目

[11] 2027.01–2030.12	国家自然科学基金面上项目，“粘弹性磁活性水凝胶的多场耦合力学行为与调控机制研究”，53 万元，主持。
[10] 2026.01–2028.12	浙江省自然科学基金杰出青年科学基金项目，“动态偏场下水凝胶材料与结构的力学行为研究”，80 万元，主持。
[9] 2025.01–2027.12	国家自然科学基金青年科学基金项目，“生物软组织力电磁耦合生长力学”，30 万元，主持。
[8] 2024.01–2026.12	国家自然科学基金优秀青年科学基金项目（海外），“智能柔性材料与结构多场耦合力学”，100 万元，主持。
[7] 2024.01–2024.12	国网浙江横向项目，“浙江电力-产业链上下游运行监测应用深化”，30 万元，主持。
[6] 2023.01–2025.12	中国力学学会青年人才“蓄水池”项目，6 万元，主持。
[5] 2021.05–2022.12	意大利米兰理工大学博士后项目，“ <i>Mechanics of polymeric gels with multi-field coupling</i> ”，114 万元，主持。
[4] 2019.12–2021.04	南加州大学博士后研究基金，“自愈合材料力学分析与器件设计”，90 万元，主持。
[3] 2019.07–2019.08	意大利政府访问学者基金，“介电圆环的非线性变形及失稳分析”，3 万元，主持。
[2] 2017.10–2019.09	爱尔兰政府博士后基金，“力-电-磁材料与结构的稳定性分析”，70 万元，主持。
[1] 2015.11–2016.05	浙江大学访问博士生基金，“介电结构中的波动分析”，6 万元，主持。

期刊论文

[†] 表示共同第一作者/同等贡献；^{*} 表示通讯作者；Invited 表示邀稿论文。

2026

43. M. Sadab and **Y. Su^{*}**. Well-posed nonlocal anti-plane shear waves in a Zener piezoelectric viscoelastic half-space. *Physics Letters A* 596, 132148 (2026).

42. B. Daraei, Y. Wang^{*}, Z. Li, **Y. Su**, E. Carrera, C. Lü, C. Zhang, and W. Chen^{*}. A refined higher-order finite strip formulation based on Carrera Unified Formulation for the free vibration analysis of axially moving laminated composite plates. *Engineering Structures* 360, 122775 (2026).

41. R. Mao, C. Liu, G. Xia^{*}, W. Chen, M. Destrade, and **Y. Su^{*}**. Finite Electromechanical Response of Fiber-Reinforced Dielectric Elastomer Tubes Under Combined Loadings. *Acta Mechanica Solida Sinica*, accepted/in press (2026).
40. G. Xia^{*}, R. Mao, W. Chen, and **Y. Su^{*}**. Wrinkling mechanics of immersed magneto-active hydrogels. *Journal of the Mechanics and Physics of Solids* 208, 106430 (2026).
39. A. Almamo, R. Mao, M. Wei, and **Y. Su^{*}**. Effect of polarization on the vibrational behavior of the soft dielectric elastomer tube. *European Journal of Mechanics - A/Solids* 116, 105886 (2026).

2025

38. C. Liu, W. Tao, **Y. Su**, K. Li, C. Zhao, C. Lü^{*}, C. Zhang, and V. Babeshko. Influence of geometrical incompatibility on morphological instability and evolution of growing tubular soft matter. *International Journal of Engineering Science* 215, 104308 (2025).
37. K. Li, Y. Yan, **Y. Su**, C. Liu, Y. Du^{*}, and C. Lü^{*}. Buckling instability of axially loaded rotating elastomer tubes. *International Journal of Smart and Nano Materials* 16(4), 742–759 (2025).
36. G. Xia, **Y. Su^{*}**, and W. Chen^{*}. Magnetoelastic surface Green's function and the stability of a soft magnetoactive half-space. *International Journal of Engineering Science* 214, 104289 (2025).
35. P. Kumar^{*}, N. Sharma, **Y. Su**, and S. P. Harsha. Effect of Winkler-Pasternak foundations and porosity on the electromechanical buckling responses of PZT-4/PZT-5H smart graded plate subjected to thermal loading. *International Journal of Computational Materials Science and Engineering*, 2550019 (2025).
34. P. Kumar^{*}, N. Sharma, **Y. Su**, and S. P. Harsha. Thermoelectric buckling response of nonuniform sigmoid functionally graded piezoelectric (SFGP) plate: Influence of elastic foundation and porosity. *International Journal of Computational Materials Science and Engineering*, 2550014 (2025).

2024

33. A. Almamo, **Y. Su^{*}**, W. Chen, and H. Wang. Axisymmetric Vibration of Inviscid Compressible Fluid-Filled Soft Dielectric Elastomer Actuator Tube. *Journal of Applied Mechanics* 91(10), 101003 (2024).
32. Y. Wang, Z. Li, X. Chen, Y. Tan, F. Wang, Y. Du^{*}, Y. Zhang, **Y. Su**, F. Xu^{*}, C. Wang, W^{*}. Chen, and J. Liu^{*}. Electroactive differential growth and delayed instability in accelerated healing tissues. *Journal of the Mechanics and Physics of Solids* 193, 105867 (2024).
31. A. Almamo, **Y. Su**, W. Chen^{*}, and H. Wang. Axisymmetric vibration and stability of dielectric-elastic tubular bilayer system. *Proceedings of the Royal Society A* 480, 20230727 (2024).
30. **Y. Su^{*}**, X. Shen, Z. Zhao, B. Wu, and W. Chen^{*}. Electromechanical Deformations and Bifurcations in Soft Dielectrics: A Review. *Materials* 17(7), 1499 (2024).

2023

29. Z. Zhao, X. Shen, **Y. Su**, and W. Chen^{*}. State-Space Approaches to Complex Structures in Aerospace. *Aerospace Research Communications* 1, 12394 (2023).
28. **Y. Su[†]**, D. Riccobelli[†], Y. Chen[†], W. Chen^{*}, and P. Ciarletta^{*}. Tunable morphing of electroactive dielectric-elastomer balloons. *Proceedings of the Royal Society A* 479(2276), 20230358 (2023).
27. **Y. Su^{*}**, A. Xin, and Q. Wang^{*}. Mechanics of Living Lattice Composites With Growing Crystals. *Journal of Applied Mechanics* 90(5), 051006 (2023).

2021

26. G. Xia, **Y. Su^{*}**, and W. Chen^{*}. Instability of compressible soft electroactive plates. *International Journal of Engineering Science* 162, 103474 (2021).

25. A. Xin[†], **Y. Su**[†], S. Feng, M. Yan, K. Yu, Z. Feng, K. H. Lee, L. Sun, and Q. Wang^{*}. Growing Living Composites with Ordered Microstructures and Exceptional Mechanical Properties. *Advanced Materials* 33(13), 2006946 (2021).
24. K. H. Yu[†], Z. Feng[†], H. Du, A. Xin, K. H. Lee, K. Li, **Y. Su**, Q. Wang^{*}, N. X. Fang^{*}, and C. Daraio^{*}. Photosynthesis-assisted remodeling of three-dimensional printed structures. *Proceedings of the National Academy of Sciences* 118(3), e2016524118 (2021).
23. **Y. Su**^{*}, R. W. Ogden, and M. Destrade. Bending control and instability of functionally graded dielectric elastomers. *Extreme Mechanics Letters* 43, 101162 (2021).
22. W. Zhou, B. Wu, **Y. Su**, D. Liu, W. Chen, and R. Bao^{*}. Tunable flexural wave band gaps in a prestressed elastic beam with periodic smart resonators. *Mechanics of Advanced Materials and Structures* 28(3), 221–228 (2021).

2020

21. G. Xia, Y. Huang, **Y. Su**, and W. Chen^{*}. Exact axisymmetric adhesive contact analysis for a pre-deformed soft electroactive half-space. *International Journal of Solids and Structures* 207, 206–229 (2020).
20. **Y. Su**. Voltage-controlled instability transitions and competitions in a finitely deformed dielectric elastomer tube. *International Journal of Engineering Science* 157, 103380 (2020).
19. W. Zhou, Y. Chen, and **Y. Su**^{*}. Bifurcation of a finitely deformed functionally graded dielectric elastomeric tube. *International Journal of Non-Linear Mechanics* 127, 103593 (2020). **Invited contribution** to the Special Issue “Instability and Bifurcation in Materials and Structures”.
18. **Y. Su**, M. Destrade^{*}, and W. Chen. Preface to the special issue of the International Journal of Non-Linear Mechanics on Nonlinear theory of electro- and magneto-elasticity. *International Journal of Non-Linear Mechanics* 126, 103568 (2020).
17. Y. Du, **Y. Su**, C. Lü^{*}, W. Chen^{*}, and M. Destrade. Electro-mechanically guided growth and patterns. *Journal of the Mechanics and Physics of Solids* 143, 104073 (2020).
16. **Y. Su**^{*}, W. Chen, L. Dorfmann, and M. Destrade. The effect of an exterior electric field on the instability of dielectric plates. *Proceedings of the Royal Society A* 476(2239), 20200267 (2020).
15. W. Zhou, **Y. Su**, W. Chen, and C. W. Lim^{*}. Voltage-controlled quantum valley Hall effect in dielectric membrane-type acoustic metamaterials. *International Journal of Mechanical Sciences* 172, 105368 (2020).
14. C. Wang, S. Zhang, S. Nie, **Y. Su**, W. Chen^{*}, and J. Song^{*}. Buckling of a stiff thin film on a bi-layer compliant substrate of finite thickness. *International Journal of Solids and Structures* 188, 133–140 (2020).
13. Y. Chen, B. Wu^{*}, **Y. Su**, and W. Chen. Effects of strain stiffening and electrostriction on tunable elastic waves in compressible dielectric elastomer laminates. *International Journal of Mechanical Sciences* 176, 105572 (2020).
12. **Y. Su**, B. Wu, W. Chen, and M. Destrade^{*}. Pattern evolution in bending dielectric-elastomeric bilayers. *Journal of the Mechanics and Physics of Solids* 136, 103670 (2020). **Invited contribution** to the Special Issue in honor of Davide Bigoni’s 60th birthday.

2019

11. **Y. Su**, W. Chen, and M. Destrade^{*}. Tuning the pull-in instability of soft dielectric elastomers through loading protocols. *International Journal of Non-Linear Mechanics* 113, 62–66 (2019). **Invited contribution** to the Special Issue “Mathematics & Mechanics: Natural Philosophy in the 21st Century”.
10. Y. Chen, B. Wu, **Y. Su**, and W. Chen^{*}. Tunable two-way unidirectional acoustic diodes: design and simulation. *Journal of Applied Mechanics* 86, 031010 (2019).
9. **Y. Su**, B. Wu, W. Chen, and M. Destrade^{*}. Finite bending and pattern evolution of the associated instability for a dielectric elastomer slab. *International Journal of Solids and Structures* 158, 191–209 (2019).

2018

8. **Y. Su**, H. C. Broderick, W. Chen, and M. Destrade*. Wrinkles in soft dielectric plates. *Journal of the Mechanics and Physics of Solids* 119, 298–318 (2018).
7. **Y. Su**, B. Wu, W. Chen, and C. Lü*. Optimizing parameters to achieve giant deformation of an incompressible dielectric elastomeric plate. *Extreme Mechanics Letters* 22, 60–68 (2018).
6. B. Wu, **Y. Su**, D. Liu, W. Chen*, and C. Zhang*. On propagation of axisymmetric waves in pressurized functionally graded elastomeric hollow cylinders. *Journal of Sound and Vibration* 421, 17–47 (2018).

2017

5. W. Zhou, W. Chen*, X. Shen, **Y. Su**, and E. Pan. On surface waves in a finitely deformed coated half-space. *International Journal of Solids and Structures* 128, 50–66 (2017).
4. B. Wu, **Y. Su**, W. Chen, and C. Zhang*. On guided circumferential waves in soft electroactive tubes under radially inhomogeneous biasing fields. *Journal of the Mechanics and Physics of Solids* 99, 116–145 (2017).

2016

3. **Y. Su**, W. Zhou, W. Chen, and C. Lü*. On buckling of a soft incompressible electroactive hollow cylinder. *International Journal of Solids and Structures* 97–98, 400–416 (2016).
2. **Y. Su**, H. Wang, C. Zhang, and W. Chen*. Propagation of non-axisymmetric waves in an infinite soft electroactive hollow cylinder under uniform biasing fields. *International Journal of Solids and Structures* 81, 262–273 (2016).

2014

1. **Y. Su** and W. Chen*. Axisymmetric waves in incompressible soft electroactive cylindrical shells subject to a biasing field (in Chinese). *Chinese Journal of Applied Mechanics* 31(1), 7–13 (2014).

学术报告

2024.03.29–04.21	口头报告 “介电弹性体稳定性的增强机制研究”，2024 年全国固体力学学术会议，南京。
2020.01.18	口头报告 “Pattern evolution in bending dielectric-elastomeric bilayers”，1st Southern California Mechanics Workshop, San Diego。
2019.07.11–12	口头报告 “Instabilities in soft dielectrics”，Two Nonlinear Days 2019, Urbino。
2019.07.01–05	口头报告 “Pattern evolution in bending dielectric-elastomeric bilayers”，International Workshop on Multiscale Spectrum, Castro。
2018.06.11–15	口头报告 “Wrinkles in soft dielectric plates”，ECCM-ECFD, Glasgow。
2018.05.12	口头报告 “Voltage-induced self-bending and the associated instability of an elastomer-dielectric bilayer”，Elasticity Day 2018, Manchester。
2017.09.03–07	口头报告 “Waves in functionally graded dielectric tubes”，ICCS20, Paris。
2017.08.14–16	口头报告 “Viscoelastic deformation and the associated snap-through instability of an incompressible dielectric plate”，CCTAM 2017, 北京。
2015.12.03–04	墙报 “Propagation of non-axisymmetric waves in a soft electroactive hollow cylinder under uniform biasing fields”，Symposium: Advances in Mechanics, Dublin。
2012.10.10–13	口头报告 “Waves in Soft Electroactive Cylindrical Shells Subject to Elastic and Electric Biasing Fields”，ICAST 2012, 南京。