



土木工程与力学学院

Faculty of Civil Engineering and Mechanics

江苏大学门户

English

网站首页

学院概况

师资队伍

人才培养

学科科研

实验平台

党群工作

学生工作

下载中心

师资队伍

教师简历

[首页](#) > [简历](#) > [力学与工程科学系](#) > [正文](#)

研究生导师

博士生导师

硕士生导师

学院教师**兼职教授****人才招聘****站内搜索** **刘金兴**

姓 名	刘金兴	出生年月	1979.06
政治面貌	群众	最高学位	博士
职 称	教授	任职年月	2013.11
职 务	无	任职年月	无
所在学科	力学	博导/硕导	博导、硕导

**学习经历:**

1998年 - 2002年, 中国科学技术大学力学与机械工程系, 本科
2002年 - 2007年, 中国科学院力学研究所, 博士

工作经历:

2007年 - 2008年, 新加坡南洋理工大学, 研究员
2008年 - 2009年, 加拿大曼尼托巴大学, 博士后
2009年 - 2010年, 加拿大纽布伦斯维克大学, 博士后
2010年 - 2013年, 沙特阿卜杜拉国王科技大学, 博士后
2013年 - 2017年, 江苏省特聘教授
2014年 -, 江苏省“创新创业”人才

学习与工作经历**学术与社会任职**

担任Proceedings of Royal Society A, Composite B, Acta Mechanica, Theoretical and Applied Fracture Mechanics, Journal of the Mechanics and Physics of Solids, International Journal of Fracture, Applied Nanoscience等杂志的审稿人。
美国Society of Engineering Science会员。

江苏省力学学会固体力学专业委员会理事。

江苏省双创人才联合会会员。

主讲课程

本科生：弹性力学、工程力学、材料力学、理论力学

研究生：弹性力学

研究领域

- 1.陶瓷、混凝土和岩石等非均匀脆性介质的损伤断裂力学；
- 2.新型材料的微纳米力学本构模型；
- 3.金属材料的韧性断裂；
- 4.人工超构材料设计与性能表征。

科研项目

在研项目

2017-2020：国家自然科学基金面上项目，基于应变梯度理论的微尺度循环塑性本构模型研究。
(11672119)

结题项目

2014-2017：江苏省青年科学基金，复合材料损伤断裂的非局部模型。(BK20140520)

论文

1. Zhao Z.Y., Liu J.X., Soh A.K. On the Da Vinci size effect in tensile strengths of nanowires: A molecular dynamics study. AIP Advances, 2018. 8(1): p. 015315.
2. Liu J.X. Simulating quasi-brittle failures including damage-induced softening based on the mechanism of stress redistribution. Applied Mathematical Modelling, 2018. 55: p. 685-697.
3. Liu J.X., Wang W., Zhao Z.Y., Soh A.K. On elastic and plastic length scales in strain gradient plasticity. Vol. 61. 2017. 275-282.
4. Liu J., Soh A.K. Strain gradient elasto-plasticity with a new Taylor-based yield function. Acta Mechanica, 2016. 227(10): p. 1-18.

主要论著

5. Liu J., Soh A.K. Gradient-type modeling of the effects of plastic recovery and surface passivation in thin films. *Modelling & Simulation in Materials Science & Engineering*, 2016. 24(6): p. 065001.
6. Xu J., Liu J., Rajendran S. A hybrid 'FE-Meshfree' QUAD4 element with nonlocal features. 2015: Springer-Verlag New York, Inc. 317-329.
7. Liu J.X. Analysis of surface effects on the deformation of a nanovoid in an elasto-plastic material. *Applied Mathematical Modelling*, 2015. 39(17): p. 5091-5104.
8. Mora A., Liu J.X., El-Sayed T. Constitutive modeling of void-growth-based tensile ductile failures with stress triaxiality effects. *Applied Mathematical Modelling*, 2014. 38(13): p. 3212-3221.
9. Liu J.X., Soh A.K. Bridging strain gradient elasticity and plasticity toward general loading histories. *Mechanics of Materials*, 2014. 78: p. 11-21.
10. Liu J.X., El-Sayed T. A variational constitutive model for the distribution and interactions of multi-sized voids. *International Journal of Damage Mechanics*, 2014. 23(1): p. 124-152.
11. Liu J.X., El-Sayed T. A strain gradient plasticity theory with application to wire torsion. *International Journal of Damage Mechanics*, 2014. 24(4).
12. Liu J.X., Demiral M., El-Sayed T. Taylor-plasticity-based analysis of length scale effects in void growth. *Modelling and Simulation in Materials Science and Engineering*, 2014. 22(7).
13. Liu J.X., El-Sayed T. A quasi-static algorithm that includes effects of characteristic time scales for simulating failures in brittle materials. *International Journal of Damage Mechanics*, 2013. 23(1): p. 83-103.
14. Liu J.X., El-Sayed T. Constitutive modeling of rate dependence and microinertia effects in porous-plastic materials with multi-sized voids (MSVs). *Modelling Simul.mater.sci.eng*, 2012. 21(1): p. 15001-15025(25).
15. Liu J.X., El-Sayed T. On the Load–Unload (L–U) and Force–Release (F–R) Algorithms for Simulating Brittle Fracture Processes via Lattice Models. *International Journal of Damage Mechanics*, 2011. 21(7): p. 960-988.
16. Liu J.X., Chen Z.T., Wang H., Li K.C. Elasto-plastic analysis of influences of bond deformability on the mechanical behavior of fiber networks. *Theoretical and Applied Fracture Mechanics*, 2011. 55(2): p. 131-139.
17. Liu J.X., Chen Z.T., Li K.C. A 2-D lattice model for simulating the failure of paper. *Theoretical and Applied Fracture Mechanics*, 2010. 54(1): p. 1-10.
18. Liu J.X., Liang N.G. Algorithm for simulating fracture processes in concrete by lattice modeling. *Theoretical and Applied Fracture Mechanics*, 2009. 52(1): p. 26-39.
19. Zhang J., Liang N.G., Deng S.C., Liu J.X., Liu X.Y., Fu Q. Study of the Damage-induced Anisotropy

of Quasi-brittle Materials using the Component Assembling Model. *International Journal of Damage Mechanics*, 2008. 17(3): p. 197-221.

20. Liu J.X., Zhao Z.Y., Deng S.C., Liang N.G. Modified generalized beam lattice model associated with fracture of reinforced fiber/particle composites. *Theoretical and Applied Fracture Mechanics*, 2008. 50(2): p. 132-141.

21. Liu J.X., Zhao Z.Y., Deng S.C., Liang N.G. Numerical investigation of crack growth in concrete subjected to compression by the generalized beam lattice model. *Computational Mechanics*, 2008. 43(2): p. 277-295.

22. Liu J.X., Zhao Z.Y., Deng S.C., Liang N.G. A simple method to simulate shrinkage-induced cracking in cement-based composites by lattice-type modeling. *Computational Mechanics*, 2008. 43(4): p. 477-492.

23. Liu J.X., Deng S.C., Liang N.G. Comparison of the quasi-static method and the dynamic method for simulating fracture processes in concrete. *Computational Mechanics*, 2008. 41(5): p. 647-660.

24. Liu J.X., Deng S.C., Zhang J., Liang N.G. Lattice type of fracture model for concrete. *Theoretical and Applied Fracture Mechanics*, 2007. 48(3): p. 269-284.

25. Deng S.C., Liu J.X., Liang N.G., Zhang J. Validation of component assembly model and extension to plasticity. *Theoretical and Applied Fracture Mechanics*, 2007. 47(3): p. 244-259.

26. Deng S.C., Liu J.X., Liang N.G. Wedge and twist disclinations in second strain gradient elasticity. *International Journal of Solids and Structures*, 2007. 44(11-12): p. 3646-3665.

27. Deng S.C., Liu J.X., Zhang J., Liang N.G. Component assembling model and its application to quasi-brittle damage. *Theoretical and Applied Fracture Mechanics*, 2006. 46(3): p. 232-242.

专著

J.X. Liu, Z.Y. Zhao, N.G. Liang. Chapter 2: Numerical and theoretical analyses of tensile failure of shrunk cement-based composites. In: *Computational Mechanics Research Trends* (Ed., H.P. Berger). Nova publisher, 2010.

J.X. Liu, A.K. Soh. Strain gradient elasto-plasticity for micron-scale deformations. ICMM4, Berkeley, USA, 2015.

重要学术 活动

J.X. Liu, A.K. Soh. A thermodynamically-consistent strain gradient plasticity theory. IWCCM24, Madrid, Spain, 2014

J.X. Liu, El Sayed. Taylor-plasticity-based analysis of length-scale effects in void growth. USNCCM12,

Raleigh, USA, 2013.

J.X. Liu, T. El-Sayed. Surface energy effects on growth of a nanovoid in a plastic material, IWBPO, Ankara, Turkey, 2012.

J.X. Liu, T. El-Sayed. Size effects in the nanovoid growth. SES2012, Atlanta, USA, 2012.

J.X. Liu, T. El-Sayed. Deformation of a nanovoid in the plastic medium and its implications, WCCM10, Sao Paulo, Brasil, 2012.

J.X. Liu, T. El-Sayed. Constitutive modeling of rate dependence and microinertia effects in porous-plastic materials with multi-sized Voids (MSV), IWCM21, Limerick, Ireland, 2011.

J.X. Liu, T. El-Sayed. A new constitutive model for multi-sized-void porous plastic failure, USNCCM' 11, Minneapolis, Minnesota, 2011.

J.X. Liu, S.C. Deng, N.G. Liang. Characteristics of mechanical responses in masonry structures. Chinese Congress of Mechanics, 2005, Beijing, China

J.X. Liu, S.C. Deng, N.G. Liang. Parameter calibration of 3D irregular lattice model, WCCM VI in conjunction with APCOM'04, Sept. 5-10, 2004, Beijing, China.

联系方式 tbjx68@hotmail.com

上一篇: [张会杰](#)

下一篇: [王钟羨](#)

学院概况	师资队伍	人才培养	学科科研	实验平台	党群工作	学生工作	下载中心
学院简介	研究生导师	本科教育	学科建设	实验室	组织机构	工作团队	各类表格
学院领导	学院教师	研究生教育	科研平台	管理制度	党建动态	规章制度	教学文件
组织机构	兼职教授	留学生教育	科研项目	先进仪器	分工会工作	科技创新	学工文件
规章制度	人才招聘	教学成果	科研成果		关工委	就业创业	
院史沿革		精品课程	社会服务		实践专栏	团学风采	
校友风采					光荣榜	致远工作坊	



All rights reserved. 江苏大学 地址: 江苏省镇江市学府路301号 邮编: 212013