



## 师资队伍

[首页](#) > [师资队伍](#) > [正文](#) >

队伍概况

人员列表



**张靖仪 教授**  
教育背景 博士  
研究领域 引力与相对论天体物理  
研究方向 黑洞热力学  
电子邮箱 zhangjy@gzhu.edu.cn  
所在系所: 物理系 天体物理中心  
办公地点: 行政西楼前座205A

张靖仪

2020-05-08 11:24 审核人:

### 个人简介

长期从事广义相对论、以及黑洞物理学的研究工作，担任物理专业本科生《力学》和研究生《广义相对论》等教学工作。在国际国内重要刊物发表SCI学术论文60余篇。所发表的学术论文总被SCI文献引用1800多次。共计有6篇第一作者论文被SCI文献引用次数超100次，单篇最高

被引用277次。有2篇论文被诺贝尔奖得主F. Wilczek引用。曾主持国家自然科学基金面上项目3项，省自然科学基金一项；曾获教育部自然科学二等奖，广州市科学技术奖一等奖。特别是曾作为第一完成人，获国际奖“Thomson Reuters Research Fronts Award 2008”，以及中国物理学会2012年度“最有影响论文奖”一等奖。2014-2019年，连续6年进入Elsevier“中国高被引学者（Most Cited Chinese Researchers）榜单”。

### ■ 担任主要课程

本科生课程：力学

研究生课程：广义相对论

### ■ 主持课题

1. 高阶近似下黑洞热力学问题研究，国家自然科学基金面上项目（2019-2022）
2. 黑洞辐射正则系综模型及相关问题研究，国家自然科学基金面上项目（2013-2016）
3. 黑洞量子隧穿辐射与信息疑难以及黑洞半经典量子化方案，国家自然科学基金面上项目（2009-2011）

### ■ 参与课题

1. 全息纠缠熵的量子修正及其应用，国家自然科学基金青年项目（2019-2020）
2. 奇性困难与时间本质，国家自然科学基金青年项目（2005-2006）
3. 广义不确定原理与黑洞热力学，国家自然科学基金面上项目（2004-2006）

### ■ 主要论文（带\*号的为通信作者）

1. Tan, Hongwei; Yang, Jinbo; Zhang, Jingyi\*; The global monopole spacetime and its topological charge, CHINESE PHYSICS B 卷: 27 期: 3 文献号: 1674-1056(2018) 27:3<030401:TGMSAI>2.0.TX;2-C 出版年: MAR 2018
2. Tan, Hong-Wei; Yang, Jinbo; He, Tangmei; Zhang, Jingyi\*, A Modified Thermodynamics Method to Generate Exact Solutions of Einstein Equations, Communications in Theoretical Physics, Volume: 67, Issue: 1, Pages: 41-46, Published: JAN 1 2017
3. Yang, Jinbo; He, Tangmei; Zhang, Jingyi\*, Simple Harmonic Oscillator Canonical Ensemble Model for Tunneling Radiation of Black Hole, Entropy, 2016,18,415 Published: 23 November 2016
4. Yang, Jinbo; He, Tangmei; Zhang, Jingyi\*, Rindler-like Horizon in Spherically Symmetric Spacetime, International Journal of Theoretical Physics, Volume: 55, Issue:7,Pages: 3220-3225 Published: JUL 2016
5. Yan, Shi; He, Tang-Mei; Zhang, Jing-Yi\*, Corrected Stefan-Boltzmann Law and Lifespan of Schwarzschild-de-sitter Black Hole, Communications in Theoretical Physics, Volume: 65, Issue: 6, Pages: 731-734, Published: JUN 1 2016
6. Chen, Sina; Zhang, Jingyi\*, The Concrete Quantum Tunneling Spectrum of Reissner-Nordstrom Black Holes, International Journal of Theoretical Physics,Volume:55, Issue:3,Pages: 1652 -1657, Published: MAR 2016
7. He, Tangmei; Zhang, Jingyi; Yang, Jinbo; et al., Lifespan of rotating black hole in the frame of generalized uncertainty principle, Modern Physics Letters A, Volume: 31, Issue:3, Article Number: 1650008, Published: JAN 30 2016
8. Chen Si-Na; Zhang Jing-Yi\*. Concrete quantum tunneling spectrum of Schwarzschild black holes, Chinese Physics B,卷: 24,期: 2,文献号: 020401, 出版年: FEB 2015
9. Jingyi Zhang. Canonical Ensemble Model for Black Hole Radiation, Journal of Astrophysics and Astronomy 卷: 35 期: 3 特刊: SI 页: 573-575 出版年: SEP 2014
10. He Tang-Mei; Yang Jin-Bo; Zhang Jing-Yi\*. Corrected Stefan-Boltzmann Law and Lifespan of a Black Hole, Chinese Physics Letters, 卷: 31 期: 8 文献号: 080401 出版年: AUG 2014
11. Jingyi Zhang. Canonical Ensemble Model for the Black Hole Quantum Tunneling Radiation, Chinese Physics Letters, 卷: 30 期: 7 文献号: 070401 出版年: JUL 2013
12. Bai-sheng Liu, Jingyi Zhang\*. Discussion on Event Horizon and Quantum Ergosphere of Dynamic de Sitter Black Holes, Modern Physics Letters A, 27(2012)1250010.
13. Bai-sheng Liu, Jingyi Zhang\*. Discussion on the event horizon and quantum ergosphere of dynamic rotating black holes in a tunneling framework, Chinese Physics B, 21(2012)070402
14. Jingyi Zhang, Zheng Zhao, "Discussion on Event Horizon and Quantum Ergosphere of Evaporating Black Holes in a Tunnelling Framework", Physical Review D, 83(2011),064028
15. Jingyi Zhang, "Black Hole Entropy Calculation in a Modified Thin Film Model", Journal of Astrophysics and Astronomy, 32(2011) , 323–325

16. Bai-Sheng Liu, Jingyi Zhang\*, "Entropy Correction for Cosmological Horizon of Schwarzschild-de Sitter Black Holes", Communications in Theoretical Physics, 55(2011)804-806.
17. Jingyi Zhang, "Entropy correction of BTZ black holes in a tunneling framework" Sci China-phys Mech Astron,53(2010)p1427-1433
18. Jingyi Zhang, "Rediscussion on Black Hole Angular Momentum" International Journal of Theoretical Physics 49(2010)p224-231
19. Yiwen Han, Jingyi Zhang, "Hawking temperature and thermodynamics geometry of the 3D charged-dilaton black holes" Physics Letters B, 692(2010),p74-77,
20. Hu, Ya-Peng; Zhang, Jing-Yi; Zhao, Zheng. A NOTE ON THE HAWKING RADIATION CALCULATED BY THE QUASICLASSICAL TUNNELING METHOD. Modern Physics Letters A 卷: 25 期: 4 页: 295-308 出版年: FEB 10 2010
21. Jingyi Zhang, "Black hole entropy, log correction and inverse area correction" Physics Letters B, 675(2009),p14-17, (SCI, IF: 5.08)
22. Liang Zhou, Jingyi Zhang\*, "Tunneling Radiation of Charged and Magnetized Particles from the Reissner-Nordström-de Sitter Black Holes with Magnetic Charges" International Journal of Theoretical Physics 48(2009)p3213-3219
23. Tang-Mei He, Jingyi Zhang, "Tunneling Radiation from a Static Spherically Symmetric Black Hole Surrounded by Quintessence" Communications in Theoretical Physics, 52(2009)619-621
24. Jingyi Zhang, "Black hole quantum tunnelling and black hole entropy correction" Physics Letters B, 668(2008),p353-356,
25. Liang Zhou, Jingyi Zhang\*, "Massive Particles' de Sitter Tunneling in (3+1)-Dimensional de Sitter Spacetimes" Communications in Theoretical Physics, 50(2008)1258-1260
26. Jingyi Zhang, Jun-Hui Fan, "Tunnelling Effect of Charged and Magnetized Particles from the Kerr-Newman-Kasuya black hole," Physics Letters B, 648(2007),p133-138
27. Jingyi Zhang, "Tunnelling Effect of Charged and Magnetized Particles from the Reissner-Nordström Black Hole with Magnetic Charges" Modern Physics Letters A, 22(2007),p1821-1828.
28. Jingyi Zhang, Jun-Hui Fan, "Fermion Entropy of Nonuniformly Rectilinearly Accelerating Black Hole with Electric and Magnetic Charges" Physica A, 379(2007), p90-100
29. Jingyi Zhang, Jun-Hui Fan, "Hawking radiation via tunnelling from general stationary axisymmetric black holes" Chinese Physics, 16(2007), p3879-3884
30. Tang-Mei He, Jingyi Zhang, "Tunnelling Radiation of Charged and Magnetized Massive Particles from BTZ Black Holes," Chinese Physics Letters, 24(2007)3336.
31. Yapeng Hu, Jingyi Zhang, Zheng Zhao, Massive Uncharged and Charged Particles' Tunneling from the Horowitz-Strominger Dilaton Black Hole, Int. J. Mod. Phys. D, 16(2007)847-856 (SCI)
32. Jingyi Zhang, Zheng Zhao, "Charged particles' tunneling form the Kerr-Newman black hole" Physics Letters B, 638(2006), p110-113.
33. Jingyi Zhang, Yapeng Huo, Zheng Zhao, "Information Loss in Black Hole Evaporation" Modern Physics Letters A, 21(2006),1865-1868.
34. Jingyi Zhang, Zheng Zhao, "New coordinates for the evaporating Vaidya black hole" Chinese Physics Letters, 23(2006)1099-1102.
35. Chenzhou Liu, Jingyi Zhang, Zheng Zhao, "Charged particles' tunneling form a dilation black hole" Physics Letters B, 639(2006), p670-674.
36. Yapeng Hu, Jingyi Zhang, Zheng Zhao, "Massive particles' Hawking radiation via tunneling from the G.H Dilaton black hole," Modern Physics Letters A 21(2006) 2143- 2149.
37. Ren Jun, Jingyi Zhang, Zheng Zhao, "Tunneling effect and Hawking radiation from a Vaidya black hole," Chinese Physics Letters, 23(2006)2019
38. Jingyi Zhang, Zheng Zhao, "Hawking radiation of charged particle via tunneling from the Reissner-Nordstrom black hole," Journal of High Energy Physics, JHEP10 (2005) Art No. 055.
39. Jingyi Zhang, Zheng Zhao, "Massive particle's black hole tunneling and de sitter tunneling, " Nuclear Physics B, 725(2005),p173-180.
40. Jingyi Zhang, Zheng Zhao, "New coordinates for Kerr-Newman black hole radiation," Physics Letters B, 618(2005), p14-22.
41. Jingyi Zhang, Zheng Zhao, "Hawking radiation via tunneling from Kerr black holes," Modern Physics Letters A, 20(2005), p1673-1681.
42. Jingyi Zhang, Zheng Zhao, "Hawking radiation of Dirac particles in a nonuniformly rectilinearly accelerating black hole, " General Relativity and Gravitation, 35(2003) 595-603.
43. Jingyi Zhang, "Hawking radiation of Dirac particles on Rindler horizon to a uniformly accelerating observer, " Communications in Theoretical Physics, 40(2003)244-246.

### ■ 出版专著/教材

刘辽, 赵峥, 田贵花, 张靖仪. 黑洞与时间的性质, 北京大学出版社, 北京: 2008 ("十一五"国家重点图书出版规划项目)

### ■ 获奖

- [1] 项目: "致密天体的理论与观测研究"获教育部高等学校自然科学奖二等奖; 获奖时间: 2010年. 获奖人: 樊军辉, 张靖仪, 张江水, 王洪光, 刘怡
- [2] 论文"New coordinates for Kerr-Newman black hole radiation" 获Thomson Reuters Research Fronts Award 2008; 获奖时间: 2008年. 获奖人: 张靖仪, 赵峥.
- [3] 项目: "致密天体的理论与观测研究"获广州市科学技术奖一等奖; 获奖时间: 2008年. 获奖人: 樊军辉, 张靖仪, 刘怡, 张江水, 王洪光, 林瑞光, 袁聿海.
- [4] 最有影响论文奖一等奖, 中国物理学会, 2012.9.22, 获奖人: 张靖仪

【关闭窗口】

[光荣榜](#)

[冬夏令营](#)

[暑期学校](#)

链接:

—机构与团队—

—学术资源—

—友情链接—

[讲座资源](#)

[科普基地](#)

[工程认证](#)



版权所有：广州大学物理与材料科学学院 | 地址：广州市大学城外环西路230号 | 邮编：510006 | 邮箱：webmaster@gzhu.edu.cn | 粤ICP备 05008855 号