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## 个人简历

孟吉翔，1962年3月生，男，汉族，甘肃平凉人，中共党员。教授，博士生导师，国务院政府津贴专家。1982年7月本科毕业于新疆大学，1985年7月硕士毕业于新疆大学，1994年12月博士毕业于四川大学，1987年5月开始在新疆大学工作至今。先后任新疆大学数学与系统学院院长、数学物理研究所所长、科研处处长等职。现任中国数学会组合数学与图论分会常务理事；新疆数学会理事长。

主要从事图论及其应用和组合优化方面的研究。现主持国家自然科学基金重点项目1项；主持完成国家自然科学基金5项，教育部项目2项，自治区自然科学基金项目2项，发表SCI收录论文95篇。

## 科研项目

- 1、国家自然科学基金重点项目，11531011、网络设计中的图论方法、2016/01-2020/12、230万元、在研、主持。
- 2、组合优化与图论教育部创新团队项目，2018/1-2020/12，300万，主持。
- 3、国家基础科学人才培养基金，J1103108、新疆大学数学基地、2012/1-2015/12、200万、已结题、主持。
- 4、国家自然科学基金面上项目，11171283、双轨道图的连通性、2012/1-2015/12、48万元、已结题、主持。
- 5、国家自然科学基金面上项目，10671165、Bi-Cayley图的连通性、Hamilton性和谱、2007/01-2009/12、20万元、已结题、主持。
- 6、教育部高校博士学位点专项科研基金，20050755001、图的对称性与连通性、2006/01-2008/12、5万元、已结题、主持。
- 7、国家自然科学基金面上项目，10271101、对称图的连通性、2003/01-2005/12、13.5万元、已结题、主持。
- 8、教育部青年教师奖励计划项目，对称图的研究、2002/01-2006/12、30万元、已结

题、主持。

9、国家自然科学基金面上项目，19871071、循环图的同构和连通性、1999/01-2001/12、6万元、已结题、主持。

10、新疆维吾尔自治区重点实验室开放课题，2015KL019、图的限制性连通性、2015/01-2017/12、20万元、已结题、主持。

11、新疆维吾尔自治区自然科学基金面上项目，2010211A06、有向双 Cayley 图的连通性与谱、2010/01-2012/12、5万元、已结题、主持。

## 科研奖励

- 1、政府特殊津贴，国务院，2000
- 2、高校青年教师奖，教育部，2002
- 3、自治区有突出贡献优秀专家，自治区人民政府，2000
- 4、宝钢优秀教师奖，教育部，2001
- 5、自治区科技进步奖二等奖，自治区人民政府，排名第五，2016
- 6、自治区科技进步奖一等奖，自治区人民政府，排名第一，2011
- 7、自治区科技进步奖二等奖，自治区人民政府，排名第一，2007
- 8、自治区科技进步奖三等奖，自治区人民政府，排名第一，1998
- 9、自治区科技进步奖三等奖，自治区人民政府，排名第一，1994
- 10、自治区第四届自然科学优秀论文奖一等奖，自治区人民政府，排名第一，1996
- 11、自治区第五届自然科学优秀论文奖一等奖，自治区人民政府，排名第一，1999
- 12、自治区第九届自然科学优秀论文奖一等奖，自治区人民政府，排名第二，2007

## 科研成果（论文、专著等）

### 2018 年度

95. Fengxia Liu, Baoyindureng Wu, Jixiang Meng, Partitioning the Cartesian product of a tree and a cycle. *Applied Mathematics and Computation* 332:90-95 (2018)

94. Laihuan Chen, Jixiang Meng, Yingzhi Tian, Xiaodong Liang, Fengxia Liu: Connectivity of half vertex transitive digraphs. *Applied Mathematics and Computation* 316:25-29 (2018)

93. Yingzhi Tian, Jixiang Meng, Hong-Jian Lai, Liqiong Xu: Connectivity keeping stars or double-stars in 2-connected graphs. *Discrete Mathematics* 341(4): 1120-1124 (2018)

92. Xiaomin Hu, Yingzhi Tian, Xiaodong Liang, Jixiang Meng: Strong matching preclusion for  $k$ -composition networks. *Theor. Comput. Sci.* 711: 36–43(2018)

91. Eminjan Sabir, Jixiang Meng: Structure fault tolerance of hypercubes and folded hypercubes. *Theor. Comput. Sci.* 711: 44–55 (2018)

#### 2017 年度

90. Dan Li, Guoping Wang, Jixiang Meng: Some results on the distance and distance signless Laplacian spectral radius of graphs and digraphs. *Applied Mathematics and Computation* 293: 218–225 (2017)

89. Xiaomin Hu, Bin Zhao, Yingzhi Tian, Jixiang Meng: Matching preclusion for  $k$ -ary  $n$ -cubes with odd  $k \geq 3$ . *Discrete Applied Mathematics* 229: 90–100 (2017)

88. Xiaodong Liang, Rui Wang, Jixiang Meng: Code for polyomino and computer search of isospectral polyominoes. *J. Comb. Optim.* 33(1):254–264 (2017)

87. Xiaomin Hu, Yingzhi Tian, Xiaodong Liang, Jixiang Meng: Matching preclusion for  $n$ -dimensional torus networks. *Theor. Comput. Sci.* 687: 40–47 (2017)

#### 2016 年度

86. Bin Zhao, Laihuan Chen, Yuepeng Zhang, Yingzhi Tian, Jixiang Meng: On the page number of triple-loop networks with even cardinality. *Ars Comb.* 124: 257–266(2016)

85. Qian Xie, Xing Chen, Jixiang Meng: Arc-connectivity of regular digraphs with two orbits. *Ars Comb.* 125: 3–10 (2016)

84. Xianglan Cao, Yingzhi Tian, Jixiang Meng: Construction of super edge-connected multigraphs with prescribed degrees. *Ars Comb.* 127: 3–13 (2016)

83. Xiaomin Hu, Yingzhi Tian, Xiaodong Liang, Jixiang Meng: Strong matching preclusion for  $n$ -dimensional torus networks. *Theor. Comput. Sci.* 635: 64–73 (2016)

#### 2015 年度

82. Juan Liu, Xindong Zhang, Jixiang Meng: Domination in lexicographic product digraphs. *Ars Comb.* 120: 23–32 (2015)

81. Laihuan Chen, Jixiang Meng, Yingzhi Tian:  $c^\lambda$ -optimally connected mixed Cayley graph. *Ars Comb.* 121: 3–17 (2015)

80. Huiqiu Lin, Weihua Yang, Jixiang Meng:  $\lambda'$ -optimal regular graphs with two orbits. *Ars Comb.* 121: 175–185 (2015)

79. Hengzhe Li, Weihua Yang, Jixiang Meng: A kind of conditional vertex connectivity of recursive circulants. *Ars Comb.* 122: 3–12 (2015)
78. Haining Jiang, Jixiang Meng, Yingzhi Tian: The Harary index of digraphs. *Ars Comb.* 123: 115–124 (2015)
77. Yingzhi Tian, Jixiang Meng: Restricted Connectivity for Some Interconnection Networks. *Graphs and Combinatorics* 31(5): 1727–1737 (2015)

#### 2014 年度

76. Juan Liu, Xindong Zhang, Jixiang Meng: Local-restricted-edge-connectivity of graphs. *Ars Comb.* 113: 97–104 (2014)
75. Yingzhi Tian, Jixiang Meng: On super restricted edge-connectivity of vertex-transitive graphs. *Ars Comb.* 113: 211–223 (2014)
74. Yingzhi Tian, Jixiang Meng: On super connectedness and super restricted edge-connectedness of total graphs. *Ars Comb.* 114: 309–319 (2014)
73. Weihua Yang, Jixiang Meng: Extraconnectivity of Folded Hypercubes. *Ars Comb.* 116: 121–127 (2014)
72. Xing Chen, Wei Xiong, Jixiang Meng: Super- $\lambda$  Connectivity of Bipartite Graphs. *Ars Comb.* 117: 353–361 (2014)
71. Hong-Jian Lai, Yanting Liang, Juan Liu, Jixiang Meng, Zhengke Miao, Yehong Shao, Zhao Zhang: On strongly  $2s-1$ -connected graphs. *Discrete Applied Mathematics* 174: 73–80 (2014).
70. Yingzhi Tian, Jixiang Meng, Hong-Jian Lai, Zhao Zhang: On the existence of super edge-connected graphs with prescribed degrees. *Discrete Mathematics* 328: 36–41 (2014)
69. Fengxia Liu, Zhao Zhang, Jixiang Meng: The Size of Maximally Irregular Graphs and Maximally Irregular Triangle-Free Graphs. *Graphs and Combinatorics* 30(3): 699–705 (2014)
68. Yingzhi Tian, Jixiang Meng: On restricted edge-connectivity of vertex-transitive multigraphs. *Int. J. Comput. Math.* 91(8): 1655–1661 (2014)
67. Mingzu Zhang, Jixiang Meng, Weihua Yang, Yingzhi Tian: Reliability analysis of bijective connection networks in terms of the extra edge-connectivity. *Inf. Sci.* 279: 374–382 (2014)

#### 2013 年度

66. Xingchao Deng, Jixiang Meng: The Diameters of Almost All Bi-Cayley Graphs. *Ars Comb.* 111: 65-74 (2013)

65. Xianglan Gao, Litao Guo, Xiaofeng Guo, Jixiang Meng: Super connectivity and super arc connectivity of the Mycielskian of a digraph. *Ars Comb.* 111: 453-461 (2013)

#### 2012 年度

64. Huiqiu Lin, Jixiang Meng, Weihua Yang: Super restricted edge connectivity of regular graphs with two orbits. *Applied Mathematics and Computation* 218(12): 6656-6660 (2012)

63. Weihua Yang, Jixiang Meng: Generalized measures of fault tolerance in hypercube networks. *Appl. Math. Lett.* 25(10): 1335-1339 (2012)

62. Xiujuan Zhang, Juan Liu, Yan Long, Jixiang Meng: The Properties of Transformation Digraphs  $D_{xyz}$ . *Ars Comb.* 103: 353-358 (2012)

61. Juan Liu, Jixiang Meng, Xindong Zhang: The Transformation Digraph  $D^{+-}$ . *Ars Comb.* 104: 525-535 (2012)

60. Hua Zou, Jixiang Meng: Graph Eigenvalues Under a Graph Transformation. *Ars Comb.* 105: 15-22 (2012)

59. Huiping Cai, Juan Liu, Jixiang Meng: Domination number in iterated line digraph of a complete bipartite digraph. *Ars Comb.* 107: 515-520 (2012)

58. Yanmei Hong, Jixiang Meng, Zhao Zhang: Edge fault tolerance of graphs with respect to super edge connectivity. *Discrete Applied Mathematics* 160(4-5): 579-587 (2012)

57. Yingzhi Tian, Jixiang Meng, Zhao Zhang: On the connectivity of  $p$ -diamond-free vertex transitive graphs. *Discrete Applied Mathematics* 160(7-8): 1285-1290 (2012)

56. Hengzhe Li, Weihua Yang, Jixiang Meng: Fault-tolerant Hamiltonian laceability of Cayley graphs generated by transposition trees. *Discrete Mathematics* 312(21): 3087-3095(2012)

55. Yingzhi Tian, Jixiang Meng, Xiaodong Liang: On Super Restricted Edge Connectivity of Half Vertex Transitive Graphs. *Graphs and Combinatorics* 28(2): 287-296 (2012)

54. Yingzhi Tian, Litao Guo, Jixiang Meng, Chengfu Qin: Inverse degree and

super edge-connectivity. *Int. J. Comput. Math.* 89(6): 752–759 (2012)

53. Xing Chen, Juan Liu, Jixiang Meng:  $\lambda$ -Optimality of Bipartite Digraphs. *Inf. Process. Lett.* 112(17–18): 701–705 (2012)

#### 2011 年度

52. Yingzhi Tian, Jixiang Meng:  $\lambda'$ -optimally connected mixed Cayley graphs. *Appl. Math. Lett.* 24(6): 872–877 (2011)

51. Juan Liu, Xindong Zhang, Jixiang Meng: The Properties of Middle Digraphs. *Ars Comb.* 101: 153–160 (2011)

50. Xindong Zhang, Juan Liu, Jixiang Meng: Domination in lexicographic product graphs. *Ars Comb.* 101: 251–256 (2011)

49. Xing Chen, Juan Liu, Jixiang Meng: Total restrained domination in graphs. *Computers & Mathematics with Applications* 62(8): 2892–2898 (2011)

48. Ying Xu, Jixiang Meng: Gaussian integral circulant digraphs. *Discrete Mathematics* 311(1): 45–50 (2011)

47. Yingzhi Tian, Jixiang Meng: Superconnected and Hyperconnected Small Degree Transitive Graphs. *Graphs and Combinatorics* 27(2): 275–287 (2011)

46. Juan Liu, Xindong Zhang, Jixiang Meng: On domination number of Cartesian product of directed paths. *J. Comb. Optim.* 22(4): 651–662 (2011)

#### 2010 年度

45. Weihua Yang, Jixiang Meng: Extraconnectivity of hypercubes (II). *Australasian J. Combinatorics* 47: 189–196 (2010)

44. Xing Chen, Zhihua Du, Jixiang Meng: Coloring and the Lovász Local Lemma. *Appl. Math. Lett.* 23(3): 219–221 (2010)

43. Mingyan Fu, Weihua Yang, Jixiang Meng: Extraconnectivity of Cartesian product graphs of paths. *Ars Comb.* 96 (2010)

42. Juan Liu, Jixiang Meng, Zhao Zhang: Double-super-connected digraphs. *Discrete Applied Mathematics* 158(9): 1012–1016 (2010)

41. Yingzhi Tian, Jixiang Meng: On super restricted edge-connectivity of edge-transitive graphs. *Discrete Mathematics* 310(17–18): 2273–2279 (2010)

40. Juan Liu, Xindong Zhang, Xing Chen, Jixiang Meng: On domination number of Cartesian product of directed cycles. *Inf. Process. Lett.* 110(5): 171–173 (2010)

39. Weihua Yang, Hengzhe Li, Jixiang Meng: Conditional connectivity of Cayley graphs generated by transposition trees. *Inf. Process. Lett.* 110(23): 1027–1030 (2010)
38. Xindong Zhang, Juan Liu, Xing Chen, Jixiang Meng: Domination number of Cartesian products of directed cycles. *Inf. Process. Lett.* 111(1): 36–39 (2010)
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37. Juan Liu, Lin Sun, Jixiang Meng: A line digraph of a complete bipartite digraph. *Appl. Math. Lett.* 22(4): 544–547 (2009)
36. Weihua Yang, Jixiang Meng: Extraconnectivity of hypercubes. *Appl. Math. Lett.* 22(6): 887–891 (2009)
35. Weihua Yang, Jixiang Meng: Embedding connected double-loop networks with even cardinality in books. *Appl. Math. Lett.* 22(9): 1458–1461 (2009)
34. Ying Xu, Jixiang Meng: On the Folded hypercube and Bi-folded Hypercube. *Ars Comb.* 92 (2009)
33. Ying Xu, Jixiang Meng: Some Algebraic Properties of Bi-Circulant Digraphs. *Ars Comb.* 92 (2009)
32. Jixiang Meng, Zhao Zhang: Super-connected arc-transitive digraphs. *Discrete Applied Mathematics* 157(4): 653–658 (2009)
31. Jinyang Chen, Jixiang Meng, Lihong Huang: Super edge-connectivity of mixed Cayley graph. *Discrete Mathematics* 309(1): 264–270 (2009)
30. Juan Liu, Xing Chen, Jixiang Meng: Super restricted edge connected Cartesian product graphs. *Inf. Process. Lett.* 109(13): 655–659 (2009)
29. Yingzhi Tian, Jixiang Meng:  $\lambda$ -Optimally half vertex transitive graphs with regularity  $k$ . *Inf. Process. Lett.* 109(13): 683–686 (2009)
28. Xindong Zhang, Juan Liu, Jixiang Meng: The bondage number in complete  $t$ -partite digraphs. *Inf. Process. Lett.* 109(17): 997–1000 (2009)
27. Xing Chen, Juan Liu, Jixiang Meng: The restricted arc connectivity of Cartesian product digraphs. *Inf. Process. Lett.* 109(21–22): 1202–1205 (2009)
26. Xinlong Feng, Yinnian He, Jixiang Meng: Application of modified homotopy perturbation method for solving the augmented systems. *J. Computational Applied Mathematics* 231(1): 288–301 (2009)

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25. Juan Liu, Jixiang Meng: Super-Arc-Connected and Super-Connected Total Digraphs. *Ars Comb.* 87 (2008)
24. Xiaodong Liang, Jixiang Meng: Connectivity of bi-Cayley Graphs. *Ars Comb.* 88 (2008)
23. Zhao Zhang, Jixiang Meng: Super-connected edge transitive graphs. *Discrete Applied Mathematics* 156(10): 1948–1953 (2008)
22. Fengxia Liu, Jixiang Meng: Edge-connectivity of regular graphs with two orbits. *Discrete Mathematics* 308(16): 3711–3716 (2008)
21. Juan Liu, Jixiang Meng: Super-connected and super-arc-connected Cartesian product of digraphs. *Inf. Process. Lett.* 108(3): 90–93 (2008)
20. Rui Li, Jixiang Meng: Reversals Cayley graphs of symmetric groups. *Inf. Process. Lett.* 109(2): 130–132 (2008)

#### 2007 年度

19. Xiaodong Liang, Jixiang Meng, Zhao Zhang: Super-Connectivity and Hyper-Connectivity of Vertex Transitive Bipartite Graphs. *Graphs and Combinatorics* 23(3): 309–314 (2007)

#### 2006 年度

18. Zhao Zhang, Jixiang Meng: Restricted Edge Connectivity of Edge Transitive Graphs. *Ars Comb.* 78 (2006)
17. Zhao Zhang, Jixiang Meng: On optimally- $\lambda(3)$  transitive graphs. *Discrete Applied Mathematics* 154(6): 1011–1018 (2006)
16. Zhao Zhang, Jixiang Meng: Semi-hyper-connected edge transitive graphs. *Discrete Mathematics* 306(7): 705–710 (2006)

#### 2004 年度

15. Baoyindureng Wu, Jixiang Meng: Hamiltonian jump graphs. *Discrete Mathematics* 289(1–3): 95–106 (2004)

#### 2003 年度

14. Jixiang Meng: Connectivity of Vertex and Edge Transitive Graphs. *Discrete Applied Mathematics* 127(3): 601–613 (2003)
13. Jixiang Meng: Optimally super-edge-connected transitive graphs. *Discrete Mathematics* 260(1–3): 239–248 (2003)
12. Jixiang Meng, Zhao Zhang: Number of minimum vertex cuts in transitive



graphs. *Discrete Mathematics* 270(1-3): 310-316 (2003)

#### 2002 年度

11. Jixiang Meng, Youhu Ji: On a kind of restricted edge connectivity of graphs. *Discrete Applied Mathematics* 117(1-3): 183-193 (2002)

#### 2000 年度

10. Jixiang Meng, Jianzhong Wang: A classification of 2-arc-transitive circulant digraphs. *Discrete Mathematics* 222(1-3): 281-284 (2000)

9. Jixiang Meng, Bao Ying: Normal Minimal Cayley Digraphs of Abelian Groups. *Eur. J. Comb.* 21(4): 523-528 (2000)

8. Qionxiang Huang, Jixiang Meng: A Classification of DCI(CI)-Subsets for Cyclic Group of Odd Prime Power Order. *J. Comb. Theory, Ser. B* 78(1): 24-34 (2000)

#### 1998 年度

7. Jixiang Meng, Qionxiang Huang: Almost all Cayley graphs have diameter 2. *Discrete Mathematics* 178(1-3): 267-269 (1998)

6. Jixiang Meng, Mingyao Xu: On the isomorphism problem of Cayley graphs of Abelian groups. *Discrete Mathematics* 187(1-3): 161-169 (1998)

#### 1997 年度

5. Jixiang Meng, Qionxiang Huang: The Automorphism Groups of Minimal Infinite Circulant Digraphs. *Eur. J. Comb.* 18(4): 425-429 (1997)

#### 1996 年度

4. Mingyao Xu, Jixiang Meng: Weakly 3-DCI abelian groups. *Australasian J. Combinatorics* 13: 49-60 (1996)

3. Qionxiang Huang, Jixiang Meng: On the isomorphisms and automorphism groups of circulants. *Graphs and Combinatorics* 12(1): 179-187 (1996)

#### 1995 年度

2. Jixiang Meng, Mingyao Xu: Automorphisms of groups and isomorphisms of Cayley digraphs. *Australasian J. Combinatorics* 12: 93-100 (1995)

1. Jixiang Meng: The generalized S-graphs of diameter 3. *Discrete Mathematics* 140(1-3): 95-106 (1995)