



高红

教授

硕士生导师

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#### 教育背景

大连理工大学工学博士 (2007)  
大连海事大学理学硕士 (2002)  
辽宁师范大学理学学士 (1999)

#### 研究领域

图论及其应用、优化算法及其应用等

#### 代表性成果

论文类:

- (1) **Hong Gao**, Xing Liu, Yuanyuan Guo, Yuansheng Yang. On two outer independent Roman domination related parameters in torus graphs. *Mathematics*. 2022. (SCI 检索)
- (2) **Hong Gao**, Tingting Feng, Yuansheng Yang. Italian domination in the Cartesian product of paths. *Journal of Combinatorial Optimization*. 2021, 41(2):526-543. (SCI 检索)
- (3) **Hong Gao**, Jiahuan Huang, Yuansheng Yang. Double Roman domination in generalized Petersen graphs. *Bulletin of the Iranian Mathematical Society*. 2021. (SCI 检索)
- (4) **Hong Gao**, Penghui Wang, Enmao Liu, Yuansheng Yang. More results on Italian domination in  $C_n \square C_m$ . *Mathematics*. 2020, 8: 465. (SCI 检索)
- (5) **Hong Gao**, Changqing Xi, Yuansheng Yang. The 3-rainbow domination number of the Cartesian product of cycles. *Mathematics*. 2020, 8(1): 65. (SCI 检索)
- (6) **Hong Gao**, Kun Li, Yuansheng Yang. The k-rainbow domination number of  $C_n \square C_m$ . *Mathematics*. 2019, 7(12), 1153. (SCI 检索)
- (7) **Hong Gao**, Changqing Xi, Kun Li, Qingfang Zhang, Yuansheng Yang. The Italian domination Numbers of generalized Petersen

- graphs  $P(n,3)$ . *Mathematics*. 2019, 7(8): 714. (SCI 检索)
- (8) **Hong Gao**, Ting ting Xu, Yuansheng Yang. Bagging approach for Italian domination in  $C_n \square P_m$ . *IEEE Access*. 2019, 7: 105224-105234. (SCI 检索)
- (9) **Hong Gao**, Qingfang Zhang, Yuansheng Yang. On the total signed domination number of the Cartesian product of paths. *Contributions to Discrete Mathematics*. 2017, 12(2): 52-62. (SCI 检索)
- (10) **Hong Gao**, Huiping Cao, Yuansheng Yang. On the total signed domination number of  $P_m \square C_n$ . *Ars Combinatoria*. 2018, 136: 3-19. (SCI 检索)
- (11) **Hong Gao**, Enmao Liu, Yuansheng Yang, Wei Liu. BBM algorithm for signed mixed domination in Cartesian product of cycles. *International Journal of Innovative Computing, Information and Control*. 2019, 15(4): 1507-1520. (EI 检索)
- (12) **Hong Gao**, Wei Duan, Tingting Feng, Yuansheng Yang. Signed mixed domination number of circulant graphs. *Proceedings of International Conference on Electronic Engineering and Informatics*. 2019, 11: 495-498. (EI 检索)
- (13) **Hong Gao**, Yanan Yin, Yuansheng Yang. Bounds on the total signed domination number of generalized Petersen graphs  $P(n,3)$ . *Journal of Physics: Conference Series*. 2018, 1187: 032098. (EI 检索)
- (14) **高红**, 黄佳欢, 栗坤, 杨元生. 路径直积图的意大利控制数. 同济大学学报. 2022. (EI 检索)
- (15) **高红**, 黄佳欢, 刘仁邦, 杨元生. 圈与圈克罗内克乘积图的罗马  $\{3\}$ -控制. 大连理工大学学报. 2021, 61(6): 652-655. (中文核心)
- (16) **高红**, 黄佳欢, 尹亚男, 杨元生. 广义彼得森图的意大利控制数. 大连理工大学学报. 2021, 61(6): 652-655. (中文核心)
- (17) **高红**, 黄佳欢, 尹亚男, 杨元生. 广义 Petersen 图  $P(n,1)$ ,  $P(n,2)$  的意大利控制数. 同济大学学报. 2021, 49(5): 751-758. (EI 检索)
- (18) **高红**, 刘仁邦, 冯婷婷, 刘巍. 图论教学中的可拓变换. 数学的实践与认识. 2021, 51(16): 262-270. (中文核心)
- (19) **高红**, 郗常清, 刘巍. 可拓分析与决策的应用研究: 以高校招生体系为例. 广东工业大学学报. 2021, 38 (1): 13-20.
- (20) **高红**, 徐晓明, 刘巍, 可拓分类在港口与后方物流园区发展关系中的应用. 数学的实践与认识. 2018, 48(8): 1-10. (中文核心)
- (21) **Hong Gao**, Liang Lv, Wei Liu. Efficiency measurement of Shenzhen port using data envelopment analysis. *International Conference on Emergency Management and Management Sciences*. 2010, 8: 206-209. (EI 检索)
- (22) **Hong Gao**, Wei Liu. An improved SVM classifier. *ICIC Express*

- Letters*. 2009, 3(4A): 1001-1005. (EI 检索)
- (23)王娜娜, **高红**, 刘巍. 异质边多重图网络模型研究. *智能系统学报*. 2017, 12(4): 1-7. (中文核心)
- (24)王娜娜, **高红**, 李珊珊, 刘巍. 基于异质超边的超图. *广东工业大学学报*. 2017, 34(1): 6-10.
- (25)杨劼, **高红**, 刘涛, 刘巍. 基于改进遗传算法的泊位岸桥协调调度优化. *计算机应用*. 2016, 36(11): 3136-3140.
- (26)Jie Yang, **Hong Gao**, Wei Liu. Extension-based recommendation system about classification algorithm and its application. *Proceedings of the 3rd International Symposium on Computer, Consumer and Control*. 2016, 8: 417-422. (EI 检索)
- (27)Jie Yang, **Hong Gao**, Wei Liu, Tao Liu. A novel strategy for berth and quay crane allocation under disruption in container terminal. *International Journal of Innovative Computing, Information and Control*. 2016, 12(5): 1535-1551. (EI 检索)
- (28)朱弘扬, **高红**, 刘巍, 丁怡. 可拓 Adaboost 算法对预测结果的改进. *辽宁工程技术大学学报*. 2016, 35(9): 993-997.
- (29)杨劼, **高红**, 刘巍, 李依楠. B2C 电商物流服务的可拓分析与评价. *物流技术*. 2015, 34(11): 102-105.
- (30)Yang Jie, **Gao Hong**, Liu Wei. Hybrid method of chaotic genetic algorithm and boundary simulation for constrained optimization. *International Journal of Innovative Computing, Information and Control*, 2015, 11(3): 1059-1074. (EI 检索)
- (31)杨劼, **高红**, 刘巍, 李依楠. 基于可拓理论的公共项目融资模式选择研究. *武汉金融*. 2014, 174(6): 11-15.
- (32)Ding Yi, **Gao Hong**, Liu Wei, Ding Hao. Research on knowledge dissemination behaviors in social network with stochastic process model. *ICIC Express Letters*. 2014, 8(10): 2945-2951. (EI 检索)
- (33)Ding Yi, **Gao Hong**, Liu Wei, Ding Hao. A dynamic model for tacit knowledge transfer. *ICIC Express Letters, Part B: Applications*. 2014, 5(4): 1057-1062. (EI 检索)
- (34)Li Shanshan, **Gao Hong**, Liu Wei. Research on ports group Internal co-competition based on social network analysis. *Proceedings of 2013 IEEE International Conference on Service Operations and Logistics, and Informatics*. 2013, 7: 186-191. (EI 检索)
- (35)Yongzhi Ma, **Hong Gao**, Yi Ding and Wei Liu. Logistics market segmentation based on extension classification. *Proceeding of 6th International Conference on Information Management, Innovation Management and Industrial Engineering*. 2013, 2: 216-219. (EI 检索)
- (36)Yi Ding, **Hong Gao** and Wei Liu. A personalized recommendation algorithm based on Extenics. *Proceedings of the International*

*Symposium on Extenics and Innovation Methods*. 2013, 8: 101-107.  
(EI 检索)

- (37) Jie Yang, **Hong Gao**, Wei Liu. Evaluation of land grading based on Extenics theory. *Proceedings of IEEE CCIS*. 2012, 10: 1716-1719.  
(EI 检索)
- (38) 马勇智, **高红**, 丁怡, 刘巍, 孙子凡. 深圳港的可拓优度评价. 大连海事大学学报. 2012, 38(4): 111-114.
- (39) Yongzhi Ma, **Hong Gao**, Yi Ding and Wei Liu. Comprehensive evaluation on port supply chain flexibility. *ICIC Express Letters*, 2012, 6(11): 2921-2926. (EI 检索)
- (40) 吕梁, **高红**, 贾红雨, 刘巍. 基于因子分析和 DEA 的港口竞争力评价研究. 大连海事大学学报. 2010, 36(4): 43-47.
- (41) Liang Lv, **Hong Gao**, Wei Liu. Port competitiveness evaluation by factor analysis. The International conference on e-product, e-service and e-entertainment. 2010, 11: 1458-1461. (EI 检索)
- (42) Liang Lv, **Hong Gao**, Wei Liu. Research on port competitiveness evaluate system based on factor analysis. *International Conference on Emergency Management and Management Sciences*. 2010, 8: 140-143. (EI 检索)
- (43) 李珊珊, 刘巍, **高红**. 基于基元的区域港口群竞合网络分析. 智能系统学报. 2017.02, 12(1): 15-23. (中文核心)
- (44) Nana Wang, Yiyue Mi, **Hong Gao**, Wei Liu. Logistics network model based on matter element node. *Procedia Computer Science (4th International Conference on Information Technology and Quantitative Management)*. 2016, 91: 351-356. (EI 检索)
- (45) 刘巍, 杨劼, **高红**. 求解不等式约束优化的可拓遗传算法. 数学的实践与认识. 2015, 45(10): 190-198.
- (46) 李珊珊, 刘巍, **高红**. 基于可拓学的复杂社会网络分析研究初探. 科技导报. 2014, 32(36): 21-25.

#### 代表性项目

- (1) 辽宁省自然科学基金, 图的控制理论及其在社会网络分析中的应用研究, 2015020033, 项目负责人.
- (2) 辽宁省博士启动基金, 可拓数学模型及其在计算语言学中的应用研究, 20091005, 项目负责人.
- (3) 大连市科技基金, 基于模糊变换的数据分析及其在汉语分析中的应用研究, 2009J22DW010, 项目负责人.
- (4) 大连海事大学青年骨干教师基金, 产品评价信息的自动抽取研究, 2009QN072, 项目负责人.
- (5) 深圳旭洋投资有限公司项目, 船舶融资项目投资风险分析, 2009H116, 项目负责人.

- (6) 深圳引航站项目，大型 LNG 船舶深圳港靠泊操纵及通航安全保障评价研究，2010Z218，项目负责人.
- (7) 深圳引航站项目，深圳港引航站助航拖轮配置研究，2010Z586，项目负责人.
- (8) 大连海事大学青年骨干教师基金，若干图类的全符号控制数研究，3132015158，项目负责人.
- (9) 大连海事大学青年骨干教师基金，交图的符号混合控制研究，3132016114，项目负责人.
- (10) 深圳市交委项目，深圳港综合竞争力评价体系，参与人.
- (11) 国家自然科学基金项目，组合结构中的模式避免和模式包含问题研究，参与人.

#### 荣誉奖励

- (1) 2021 年被评为大连海事大学优秀硕士研究生导师
- (2) 2021 年被评为全国大学生数学建模竞赛优秀指导教师
- (3) 2022 年获大连海事大学研究生优质教学奖二等奖
- (4) 2021 年获辽宁省普通高等学校教师教学大赛二等奖

#### 社会兼职

- (1) 中国人工智能学会可拓学专业委员会常务委员
- (2) 广东工业大学可拓学与创新方法研究所兼职研究员，可拓论研究中心副主任