

林振权教授简介

一、个人基本情况:

姓名: 林振权

性别: 男

出生年月: 1963.10

民族: 汉

职称职务: 教授

政治面貌: 中国党员

最后学历、学位: 研究生、硕士

工作单位: 温州大学物理与电子信息工程学院

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二、从事研究的专业领域及主要研究方向

研究的专业领域: 理论物理

主要研究方向:

(1)复杂系统动力学

(2)统计物理

三、主要工作经历及业绩

主要经历如下:

1980年9月~1984年7月	杭州大学	物理本科
1985年9月~1988年7月	杭州大学	理论物理硕士研究生
1996年12月~2001年10月	温州师范学院	物理副教授
2001年11月~至今	温州大学(温州师范学院)	物理教授

2003 年 2~7 月

加拿大多伦多大学物理系高访研究学者

2011 年 6 月~至今

温州大学复杂系统研究所所长

四、近年主持的主要教学科研项目

- (1) 聚集生长过程动力学行为的研究（浙江省自然科学基金项目，2002 年立项，批准号 102067）
- (2) 聚集生长过程动力学的研究（国家自然科学基金项目，2002 年立项，批准号 10275048）
- (3) 以经济社会系统为代表的复杂系统聚集演化的机制及规律（国家自然科学基金项目，2008 年立项，批准号 10875086）

五、近年完成的主要教学科研成果目录

1、部分学术论文：（各类实例如下，请严格按照模板填写）

- (1) **Zhenquan Lin** and Jianhong Ke, Kinetics of a migration-driven aggregation process with birth and death, Phys. Rev. E **67**, 031103 (2003)
- (2) **Zhenquan Lin**, Jianhong Ke and Gaoxiang Ye, Mutually catalyzed birth of population and assets in exchange-driven growth, Phys. Rev. E **74**, 046113 (2006)
- (3) Haifeng Wang, **Zhenquan Lin** and Jianhong Ke, Competition between the catalyzed birth and death in the exchange-driven growth, Phys. Rev. E **75**, 046108 (2007) （通讯作者）
- (4) Jianhong Ke and **Zhenquan Lin**, Kinetic behavior of aggregation processes with complete annihilation, Phys. Rev. E **65**, 051107 (2002)
- (5) Jianhong Ke and **Zhenquan Lin**, Solvable n -species aggregation process with joint annihilation, Phys. Rev. E **66**, 041105 (2002)
- (6) Jianhong Ke and **Zhenquan Lin**, Kinetics of migration-driven aggregation processes, Phys. Rev. E **66**, 050102(R) (2002)
- (7) Jianhong Ke and **Zhenquan Lin**, Kinetics of the catalysis-driven aggregation processes, Phys. Rev. E **66**, 062101 (2002)
- (8) Jianhong Ke and **Zhenquan Lin**, Kinetic behavior of aggregation-fragmentation process with annihilation, Commun. Theor. Phys. **37**, 297 (2002)
- (9) Jianhong Ke and **Zhenquan Lin**, Breakdown of scaling in aggregation-fragmentation-annihilation process of n -species systems, Commun. Theor. Phys.

- 38**, 235 (2002)
- (10) Jianhong Ke and **Zhenquan Lin**, Solvable aggregation model with monomer annihilation, Phys. Rev. E **67**, 062101 (2003)
- (11) Jianhong Ke and **Zhenquan Lin**, A solvable two-species catalysis-driven aggregation model, J. Phys. A: Math. Gen. **36**, 3683 (2003)
- (12) Jianhong Ke and **Zhenquan Lin**, Kinetic behaviour of irreversible aggregation–annihilation process with input term, Physica A **320**, 261 (2003)
- (13) Jianhong Ke, **Zhenquan Lin**, and Youyi Zhuang, Aggregate size distributions in migration driven growth models, Eur. Phys. J. B **36**, 423 (2003)
- (14) Jianhong Ke, **Zhenquan Lin** and Xianghong Wang, Exact solution of the cluster size distribution for multi-polymer coagulation process, Chin. Phys. Lett. **20**, 151 (2003)
- (15) Jianhong Ke, Juanjuan Lin and **Zhenquan Lin**, Scaling in aggregation process with a kernel related to the reaction activities, Chin. Phys. Lett. **20**, 1390 (2003)
- (16) Jianhong Ke, **Zhenquan Lin** and Xianghong Wang, Kinetic behaviour of two-species-group aggregation process with complete annihilation, Chin. Phys. **12**, 443 (2003)
- (17) Jianhong Ke and **Zhenquan Lin**, Kinetics of an n -species aggregation chain model with complete annihilation, Commun. Theor. Phys. **39**, 115 (2003)
- (18) **Zhenquan Lin**, Jianhong Ke and Xianghong Wang, Kinetic behaviour of the aggregation-annihilation process of two-species-group system, Commun. Theor. Phys. **39**, 635 (2003)
- (19) Jianhong Ke, **Zhenquan Lin** and Yusu Chen, Nonuniversality and breakdown of scaling in aggregation process with removal term, Commun. Theor. Phys. **40**, 123 (2003)
- (20) Youyi Zhuang, **Zhenquan Lin** and Jianhong Ke, Kinetics of a migration-driven aggregation-fragmentation process, Commun. Theor. Phys. **40**, 231 (2003)
- (21) Jianhong Ke and **Zhenquan Lin**, Catalysis-driven aggregate growth, J. Phys. A: Math. Gen. **37**, 3967 (2004)
- (22) Jianhong Ke, Youyi Zhuang and **Zhenquan Lin**, Two-species aggregation processes with migration, Phys. Lett. A **325**, 9 (2004)
- (23) Jianhong Ke, Xiao-Ou Cai and **Zhenquan Lin**, Reversible aggregation processes with time-dependent rate kernels, Phys. Lett. A **331**, 281 (2004)

- (24) Jianhong Ke, Xianghong Wang, **Zhenquan Lin** and Youyi Zhuang, Scaling in the aggregation process with catalysis-driven fragmentation, *Physica A* **338**, 356 (2004)
- (25) Jianhong Ke and **Zhenquan Lin**, Dynamics of aggregate growth through monomer birth and death, *Chin. Phys. Lett.* **21**, 972 (2004)
- (26) Jianhong Ke, Xiaou Cai and **Zhenquan Lin**, Population and asset distributions in economically competitive activities: a rate-equation approach, *Chin. Phys. Lett.* **21**, 1216 (2004)
- (27) Jianhong Ke, **Zhenquan Lin**, and Youyi Zhuang, Scaling behavior of an aggregation-migration model, *Commun. Theor. Phys.* **41**, 781 (2004)
- (28) Xianghong Wang, Jianhong Ke, and **Zhenquan Lin**, Dynamics of aggregation-annihilation process with cluster removals, *Chin. Phys.* **13**, 765 (2004)
- (29) Jianhong Ke, Xianghong Wang, **Zhenquan Lin**, and Youyi Zhuang, Dynamic scaling of migration-driven aggregate growth, *Chin. Phys.* **13**, 772 (2004)
- (30) Jianhong Ke, **Zhenquan Lin** and Youyi Zhuang, Scaling theory for intermediary-activated migration processes, *Int. J. Mod. Phys. B* **18**, 2628 (2004)
- (31) **Zhenquan Lin**, Jianhong Ke and Gao-Xiang Ye, Exchange-driven growth with birth rate less than death, *Commun. Theor. Phys.* **43**, 837 (2005)
- (32) Jianhong Ke, **Zhenquan Lin** and Youyi Zhuang, Monomer migration and annihilation processes, *Commun. Theor. Phys.* **43**, 953 (2005)
- (33) Jianhong Ke, Youyi Zhuang and **Zhenquan Lin**, Aggregate growth driven by monomer transfer, *Chin. Phys.* **14**, 1676 (2005)
- (34) Jianhong Ke, Youyi Zhuang, **Zhenquan Lin** and Peng Ye, Competition between aggregation and migration processes of a multi-species system, *Chin. Phys.* **14**, 2602 (2005)
- (35) Xianghong Wang, Jianhong Ke, and **Zhenquan Lin**, The distribution function of residue-residue contacts in protein molecules, *Chin. J. Poly. Sci.* **23**, 387 (2005)
- (36) Jianhong Ke, **Zhenquan Lin**, Yizhuang Zheng, Xiaoshuang Chen, and Wei Lu, Migration-driven aggregate growth on scale-free networks, *Phys. Rev. Lett.* **97**, 028301 (2006)
- (37) Jianhong Ke, **Zhenquan Lin** and Xiaoshuang Chen, Pregelation behaviour of coagulation processes with the constant-reaction-number kernel, *Chin. Phys. Lett.* **23**, 720 (2006)

- (38) Yu Chen, Anjia Han, Jianhong Ke and **Zhenquan Lin**, Aggregation processes with catalysis-driven monomer birth/death, *Chin. Phys.* **15**, 1896 (2006)
- (39) Lucas Goehring, Stephen W. Morris and **Zhenquan Lin**, Experimental investigation of the scaling of columnar joints, *Phys. Rev. E* **74**, 036115 (2006)
- (40) Jianhong Ke, Xiaoshuang Chen, **Zhenquan Lin**, Yizhuang Zheng, and Wei Lu, Kinetics of migration-driven aggregation processes on scale-free networks, *Phys. Rev. E* **74**, 056102 (2006)
- (41) Jianhong Ke, **Zhenquan Lin** and Xiaoshuang Chen, Solvable aggregation-migration-annihilation processes of a multispecies system, *Commun. Theor. Phys.* **46**, 161 (2006)
- (42) Haifeng Wang, **Zhenquan Lin** and Xiangmu Kong, Kinetic behavior of exchange-driven growth with catalyzed-birth processes, *Commun. Theor. Phys.* **46**, 1113 (2006) (通讯作者)
- (43) Jianhong Ke, **Zhenquan Lin** and Xiaoshuang Chen, Novel biased aggregation-annihilation model, *Commun. Theor. Phys.* **47**, 355 (2007)
- (44) Anjia Han, Yu Chen, **Zhenquan Lin** and Jianhong Ke, Kinetic behavior of aggregation-exchange growth process with catalyzed-birth, *Commun. Theor. Phys.* **47**, 479 (2007) (通讯作者)
- (45) Jianhong Ke, **Zhenquan Lin**, Yizhuang Zheng, Xiaoshuang Chen, and Wei Lu, Solvable single-species aggregation-annihilation model for chain-shaped cluster growth, *J. Phys.: Condens. Matter* **19**, 065104 (2007)
- (46) Jianhong Ke, Yizhuang Zheng, **Zhenquan Lin**, Xiaoshuang Chen, Coagulation and self-duplication processes of a chain-shaped polymer system, *Phys. Lett. A* **368**, 188 (2007)
- (47) Yu Chen, Jianhong Ke and **Zhenquan Lin**, Kinetics of catalysis-driven aggregation processes with sequential input of catalyst, *Commun. Theor. Phys.* **49**, 235 (2008)
- (48) Jianhong Ke, **Zhenquan Lin** and Xiaoshuang Chen, Analytical results of a two-species predator-prey model, *Commun. Theor. Phys.* **49**, 791 (2008)
- (49) Haifeng Wang, **Zhenquan Lin** and Yan Gao, Kinetics of aggregation growth with competition between catalyzed birth and catalyzed death, *Chin. Phys. B* **17**, 1490 (2008) (通讯作者)
- (50) Ke Lu, **Zhenquan Lin** and Yunfei Sun, Kinetic behaviors of a competitive population and

- fitness system in exchange-driven growth, *Commun. Theor. Phys.* **50**, 105 (2008) (通讯作者)
- (51) Shunyou Yang, Shengqing Zhu, Jianhong Ke and **Zhenquan Lin**, Kinetics of infection-driven growth model with birth and death, *Commun. Theor. Phys.* **50**, 787 (2008)
- (52) Jianhong Ke, **Zhenquan Lin** and Xiaoshuang Chen, An analytical solution of coagulation processes with collision-induced fragmentation, *J. Phys. A: Math. Theor.* **41**, 285005 (2008)
- (53) Shengqing Zhu, Shunyou Yang, Jianhong Ke and **Zhenquan Lin**, Kinetic behaviours of aggregate growth driven by time-dependent migration, birth and death, *J. Phys. A: Math. Theor.* **41**, 505004 (2008)
- (54) Yunfei Sun, Dan Chen, **Zhenquan Lin** and Jianhong Ke, Kinetic behaviors of catalysis-driven growth of three-species aggregates on base of exchange-driven aggregations, *Commun. Theor. Phys.* **51**, 1042 (2009) (通讯作者)
- (55) Haifeng Wang, **Zhenquan Lin**, Yan GAO and Heng Zhang, Solvable Catalyzed Birth-Death-Exchange Competition Model of Three Species, *Commun. Theor. Phys.* **52**, 735 (2009)
- (56) Haifeng Wang, **Zhenquan Lin**, Yan GAO and Chao Xu, Kinetics of catalytically activated duplication in aggregation growth, *Chin. Phys. B* **18**, 3577 (2009)
- (57) Rong Xiang, Youyi Zhuang, Jianhong Ke and **Zhenquan Lin**, Aggregation Processes with Catalysis-Driven Decomposition, *Commun. Theor. Phys.* **52**, 622 (2009)
- (58) Jianhong Ke, **Zhenquan Lin** and Xiaoshuang Chen, Scaling in Rate-Changeable Birth and Death Processes with Random Removals, *Commun. Theor. Phys.* **51**, 165 (2009)
- (59) Jianhong Ke, Pingping Li, Xiaoshuang Chen, **Zhenquan Lin** and Yizhuang Zheng, Connectivity of growing networks with link constraints, *Eur. Phys. J. B* **70**, 211 (2009)
- (60) Dan Chen, **Zhenquan Lin**, Yunfei Sun and Jianhong Ke, Competition between self-birth and catalyzed death in aggregation growth with catalysis injection, *Commun. Theor. Phys.* **52**, 1139 (2009) (通讯作者)
- (61) 施华萍、柯见洪、孙策、林振权, 中国人口分布规律及演化机理研究, *物理学报* **58**, 1 (2009);
- (62) Jianhong Ke, Xiaoshuang Chen, and **Zhenquan Lin**, Analytical results for the cluster size distribution in controlled deposition processes, *Chin. Phys. B* **19**, 026802 (2010)

- (63) Meixia Song, **Zhenquan Lin**, Xiaodong Li, and Jianhong Ke, Aggregation behaviors of a two-species system with lose-lose interactions, *Commun. Theor. Phys.* **53**, 1190 (2010) (通讯作者)
- (64) Xiaodong Li, **Zhenquan Lin**, Meixia Song and Jianhong Ke, Competing role of catalysis-coagulation and catalysis-fragmentation in kinetic aggregation behaviours, *Chin. Phys. B* **19**, 128201 (2010) (通讯作者)
- (65) Ming Yin, **Zhenquan Lin** and , Jianhong Ke, Dynamic models of pest propagation and pest control, *Chin. Phys. B* **20**, 088201 (2011) (通讯作者)

2、已完成科研课题:

- (1) 聚集生长过程动力学行为的研究 (No. 102067), 浙江省自然科学基金项目 (2003-2005);
- (2) 聚集生长过程动力学的研究 (No. 10275048) 国家自然科学基金项目 (2003-2005)

3、教学科研获奖:

- (1) 分形上相变与临界现象研究, 2002 年度浙江省科学技术奖三等奖, 排名第一。
- (2) 聚集体的非线性演化动力学, 2008 年度浙江省科学技术奖三等奖, 排名第二。

六、研究生培养情况

已培养硕士 9 名, 目前指导在读硕士研究生 3 名。
2004 级硕士研究生王海锋在 *Phys. Rev. E* 发布论文 1 篇

(2011 年 12 月更新)