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## 系部设置

自动化系
电子工程系
电子科学与技术系
电气系
通信工程系
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## 学术讲座

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## 物理系

郑志刚  
2016-03-30



### 一、简况

姓名：郑志刚                      性别：男                      出生时间：1969.8.8（山东烟台）  
学历：博士后                      学位：博士                      获得学位时间：1998.1（北京师范大学）  
职称：二级教授，博士生导师                      晋升时间：2001.7（破格）  
研究方向：系统科学，理论物理（统计物理、非线性科学）。

- ✦ 信息学院举办控制学科高质量论 11-02
- ✦ 庆祝华侨大学建校60周年信息学 11-02
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## 功能导航

- ✦ 系统科学研究所
- ✦ 一带一路
- ✦ 元顺IC设计中心
- ✦ 网上问卷调查
- ✦ 光学与光子学研究所

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## 二、社会兼职

### 2.1 机构兼职

- 1 中国物理学会教学委员会委员
- 1 北京市物理学会理事
- 1 高等学校热力学与统计物理研究会副理事长 (2002-2009)
- 1 北京师范大学物理系系主任 (2006.12- 2011.12)
- 1 北京师范大学教代会青年工作委员会主任 (2007-2012)
- 1 北京师范大学教代会执行委员会委员 (2012-)
- 1 北京师范大学物理学科学学位分会委员，系统科学学位分会副主任
- 1 北京师范大学第五届、第六届教代会代表
- 1 徐州师范大学讲座教授 (2003-)
- 1 玉溪师范学院特聘教授 (2012-)

### 2.2 杂志编委

- 1 杂志主编：Advances in Condensed Matter Physics(CMP) (Hans Publishers) (2012-)
- 1 编委：物理学进展(2008-), 计算物理(2008-), 北京师范大学学报(自然科学版) (2015.1-)
- 1 Optoelectronics (2011- ) (Hans Publishers)

### 2.3 学术组织

- 1 “九七三”项目成员、非线性项目规划组成员，混沌子课题负责人(2000-2005, 2007-2011)
- 1 意大利国际理论物理中心 (ICTP) 联系成员 (junior associate member, 2004-2011)
- 1 北师大理论物理国家重点学科学术带头人，统计物理与非线性科学校级创新群体负责人

- 1 中国物理学会统计物理与复杂系统分会委员

- 1 复杂系统与复杂网络专业委员会委员

### 2.4 基金评审兼职

- 1 国家科学技术奖评审专家
- 1 国家自然科学基金评审专家
- 1 全国优秀博士学位论文奖评审专家
- 1 教育部科研基金和科技奖励 (博士点基金、霍英东基金等) 评审专家

❖ 华侨大学物理实验中心

❖ 电工电子实验中心

--相关链接--

1 中国博士后基金会博士后基金评审专家

1 高等学校建设项目评审专家

1 广西科技进步奖评审专家

1 中科院“百人计划”评审专家

2.5 杂志特约审稿人

1 英文杂志: PRL, PRE, PLA, EPL, Physica, A, D, Chaos, EPJB, CNSNS, CS&F(Chaos, Solitons and Fractals)、Canadian Journal of Physics (CJP), International Journal of Modern Physics B, Modern Physics Letters, Discrete Dynamics in Nature and Society, Communications in Theoretical Physics, Chinese Physics, Chinese Physics Letters等

1 中文期刊: 物理学报、中国科学, 科学通报、计算物理、复杂性科学、系统工程与电子、化学物理学报、中国科技大学学报、深圳大学学报、河北师范大学学报、南京师范大学学报等

2.6 会议兼职

1 CCCN-05、CCCN-06、CCCN-07、CCCN-08, CCCN-09, CCCN-10、CCCN-11会议程序委员会委员

1 2005, 第二届全国复杂网络论坛组委会成员, CCAST, 北京

1 2006, 复杂系统研究论坛“复杂系统的结构、非线性动力学与统计物理”学术委员会委员, 上海

1 2006, 第三届全国复杂网络论坛大会主席, CCAST, 北京

1 2006, “International Conference on the Frontiers of Nonlinear and Complex Systems”组委会成员, 香港

1 2007, 物理学秋季会议非线性与交叉分会主席, 南京

1 2007, 海峡两岸统计物理大会学术委员会委员, 分会主席, 杭州, 金华

1 2008, 第四届全国网络科学论坛组委会委员, 青岛

1 2011, IEEE多媒体技术国际会议(ICMT2011)的程序委员会委员

1 2011, 第一届全国统计物理与复杂系统会议, 工作委员会委员, 南京

1 2012, Member of International Advisory Committee, DDAP7, Taiwan

三、社会履历

1988.9-1992.7 北京师范大学物理系本科.

1992.9-1994.7 北京师范大学物理系硕士.

1994.9-1997.7 北京师范大学物理系博士.

1996.9-1997.7 Hong Kong Baptist University非线性研究中心博士后.

1997.7-1999.6 北京师范大学物理系讲师.

1998.5-1999.5 Hong Kong Baptist University非线性研究中心博士后.

1999.7-2001.6 北京师范大学物理系副教授, 硕士生导师.

2001.7- 北京师范大学物理系教授 (破格).

2001.11-2002.11 California Institute of Technology, 高级访问学者.

2002.7- 北京师范大学物理系博士生导师

2004.3-2004.7 Hong Kong Baptist University Croucher Fellow  
2007.1-2012.12 北京师范大学三级教授  
2009.7-2009.8 National University of Singapore, Temasek (淡马锡) 实验室  
高级访问科学家  
2009.10-2009.11, University of Maryland, 高等教育创新培训  
2010.1-2010.2 台湾中央研究院物理所访问学者  
2013.1-2015.9 北京师范大学二级教授  
2015.11- 国立华侨大学特聘教授, 闽江学者特聘教授

#### 四、获奖情况

1999: 教育部骨干教师基金.  
2000: 教育部出国研修基金.  
2000: 励耘优秀学术著作奖.  
2001: 2001年度全国百篇优秀博士学位论文.  
2002: 教育部第三届“高校青年教师奖”.  
2001: 教育部第八届霍英东青年教师基金.  
2002: 教育部首批“高等学校骨干教师资助计划”优秀骨干教师奖  
2004: 香港裘楷基金会裘楷访问学者  
2004: 意大利国际理论物理中心联系成员 2004-2011  
2008: 第六届中国科协期刊优秀学术论文二等奖(中国科学技术协会)。  
2010: 北京市科学技术三等奖  
2008: 北京师范大学优秀共产党员  
2012: 北京师范大学教书育人模范党员教师  
2013: 北京师范大学十佳共产党员  
2014: 北京师范大学通鼎青年教师奖  
2014: 欧洲物理快报(EPL)2013年度 Distinguished Referee  
2015: 北京师范大学研究生优质课程特等奖(第一名)  
2015: 北京师范大学研究生教学成果奖一等奖

#### 五、基金情况

##### 5.1 在研项目:

1. 主持: 非平衡系统若干反常行为的微观动力学机制研究, 国家自然科学基金面上项目(11475022)(2015.1-2018.12)。
2. 主持: 非平衡与复杂系统的集体行为动力学, 华侨大学科研启动费项目(高层次人才)(2015.11-2018.11)。

##### 5.2 已完成科研项目:

1. 主持：非线性晶格体系的热传导调控、整流与热流棘齿效应，国家自然科学基金面上项目（11075016）（2011.1-2013.12）
2. 主持：非线性体系的热传导整流与热流棘齿效应，博士点基金（20100003110007）（2011.1-2013.12）
3. 主持：当代物理学前沿进展概论，北京师范大学研究生院一级学科博士学位基础课程建设项目，郑志刚（2011.9-2013.6）
4. 主持：开放复杂体系的统计物理与非线性动力学，北京师范大学自主科研基金创新研究群体建设项目（2011.01-2012.12）
5. 主持：基于动力学演化分析的复杂系统网络结构探测，国家自然科学基金面上项目（10875011）（2009.1-2011.12）
6. 负责人：“经典与量子系统中的不可积性、随机性与混沌扩散”，973项目子课题2007CB814805（2007.7-2011.8）。
7. 主持：统计物理与非线性科学，北京师范大学创新群体专项（2008.1-2010.12）
8. 主持：复杂网络的时空动力学与同步研究，博士点基金（20060027009）（2007.1-2009.12）
9. 主持：时空系统的非线性输运动力学研究，国家自然科学基金面上项目(10575010)（2006.1-2008.12）
10. 负责人：非线性网络的动力学复杂性研究，国家自然科学基金重点项目(70431002)（2005.1-2008.12）
11. 主持：“耦合非线性系统的时空动力学与合作行为”，国家自然科学基金青年项目19805002（1999.1-2001.12）
12. 主持：“信息过程中混沌和噪声的控制与利用”，GG-140-87501-1370，教育部“高等学校骨干教师资助计划”项目
13. 主持：“非线性系统相位动力学的理论与实验研究”，国家自然科学基金项目 10175009（2002.1-2003.12）。
14. 负责：“混沌的控制、量子混沌与随机动力系统”，“九七三”国家重点基础研究项目(G2000077304)（2000.4-2005.4）
15. 主持：时空非线性系统的结构、混沌与同步，霍英东教育基金会高等院校青年教师基金(81006)（2002-2004）。
16. 主持：时空非线性系统的输运过程与合作动力学,博士点基金(20020027011)（2003.1-2005.12）。
17. 主持：高校青年教师教学和科研奖励基金，(No.209)（2002-2006）。
18. 主持：时空非线性系统的合作动力学及斑图结构统计的理论与实验研究. 高等学校全国优秀博士学位论文作者专项资金（2002.1-2006.12）。
19. 主持：时空动力学与斑图结构研究，教育部重点项目（2006）。

## 六、专著及论文发表情况

### 6.1 学位论文（1篇）

1. 博士学位论文: 郑志刚, “从少体系统到多体系统, 动力学与统计力学” (北京师范大学, 1997).  
导师: 胡岗教授. \*\* 该论文被评为2001年 全国优秀博士学位论文.

#### 6.2 专著 (5部+ 1篇Book Chapter)

2. 胡岗, 肖井华, 郑志刚, 混沌控制, 非线性科学丛书, 上海科技教育出版社(2000).

3. 郑志刚, 耦合非线性系统的合作行为与时空动力学 (高等教育出版社, 2004).

4. Zhigang Zheng, Synchronization of coupled phase oscillators, Chapter 9, p293-327, in “Advances in Electrical Engineering Research. Volume 1” (Editors: Thomas M. Brouwer)” (Nova Science Publishing House, 2011, ISBN: 978-1-61728-496-0).

5. 郑志刚, 胡岗, 从动力学到统计物理, 中外物理学精品书系, 北京大学出版社 (2016);

#### 6.3 文集

6. Zhigang Zheng, Phase synchronization in coupled chaotic systems, p298-301, in “The Frontiers of Physics at Millennium, Proceedings of the Symposium, Beijing, China 8-11 October 1999, Eds. Y.L. Wu and J.P. Hsu (World Scientific Press, April 2001, Singapore), ISBN: 978-981-02-4332-6.

7. Zhigang Zheng eds., Proceedings of CCAST-WL Workshop series: Vol. 180, Third National Forum on Complex Dynamical Networks, (CCAST, Beijing, 2006).

8. 胡岗, 郑志刚10000个科学难题 (物理学卷), 814, 科学出版社 (2009), 能否利用随机共振机制提高弱信号接收的信噪比,

9. 胡岗, 郑志刚10000个科学难题 (物理学卷), 827, 科学出版社 (2009), 非线性波传播的界面效应,

10. Zongqiang Yuan and Zhigang Zheng, Nonlinear wave dynamics of the Transport Process on Nonlinear Lattices, 167-172, Symmetries and groups in contemporary physics. Proceedings of the XXIX international colloquium on group-theoretical methods in physics, Tianjin, China, August 20-26, 2012 (Editors: Chengming Bai, Jean-Pierre Gazeau and Mo-Lin Ge) (World Scientific, 2013); ISBN 978-981-4518-54-3.

#### 6.4 邀请综述

11. Bambi Hu and Zhigang Zheng, Phase synchronizations: transitions from high- to low-dimensional tori through chaos, Inter. J. Bif. & Chaos 10, 10, 2399-2414 (2000).

12. Zhigang Zheng, Xiaoqin Feng, Bin Ao, and M. Cross, Synchronization on Coupled Dynamical Networks, Frontiers of Physics in China 1, 4, 458 (2006).

13. 方锦清, 汪小帆, 郑志刚, 李翔, 狄增如, 毕桥, 一门崭新的交叉科学: 复杂网络, 物理学进展 (上) 27, 3, 239-343 (2007)

14. 方锦清, 汪小帆, 郑志刚 (下) 27, 4, 361-448 (2007), 李翔, 狄增如, 毕桥, 一门崭新的交叉科学: 复杂网络, 物理学进展

15. 方锦清, 汪小帆, 郑志刚29, 1, 1-73 (2009), 非线性网络的动力学复杂性研究, 物理学进展

16. Tutorial Review: Liang Cao, Pu Ke, Liyan Qiao, and Zhigang Zheng, Nonequilibrium Thermodynamics and Fluctuation Relations of Small Systems, Chin. Phys. B 23 (7), 070501 (2014).
  17. Nan Yao and Zhigang Zheng\*, Chimera states in spatiotemporal systems: Theory and Applications, Int. J. Mod. Phys. B Vol. 30, No. 0 (2016) 1630002 (44 pages).
- 6.5 杂志论文
- 1995
18. Zhigang Zheng and Gang Hu, Systematic perturbation solution for Brownian motion in a biased periodic potential field, Phys. Rev. E 52, 109-114 (1995).
  19. Zhigang Zheng, Gang Hu and Juyuan Zhang, Ergodic property of a Henon-Heiles model with reflecting walls, Phys. Rev. E 52, 3440-3446 (1995).
  20. Juyuan Zhang, Zhigang Zheng, and Gang Hu, Thermodynamic Functions of Few-body Systems, Journal of Beijing Normal University (Natural Science) 31, 483-486 (1995).
- 1996
21. Zhigang Zheng, Gang Hu and Juyuan Zhang, Ergodicity in the hard-ball systems and Boltzmann's entropy, Phys. Rev. E 53, 3246-3252 (1996).
  22. Zhigang Zheng and Gang Hu, Hamilton-Jacobi theory of colored noise problem and probability hole in the bistable system, Comm. Theor. Phys. 25, 439-442 (1996).
- 1997
23. Zhigang Zheng and Gang Hu, Brownian motion of oxide high-Tc superconductor and inertial effects of vortices, Comm. Theor. Phys. 27, 157-162 (1997).
- 1998
24. Zhigang Zheng, Bambi Hu and Gang Hu, Spatiotemporal dynamics of discrete sine-Gordon lattices with sinusoidal couplings, Phys. Rev. E 57, 1139-1144 (1998).
  25. Zhigang Zheng, Bambi Hu and Gang Hu, Resonant steps and spatiotemporal dynamics in the damped dc-driven Frenkel-Kontorova chain, Phys. Rev. B 58, 5453-5461 (1998).
  26. Zhigang Zheng, Bambi Hu and Gang Hu, Array-induced collective transport in the Brownian motion of coupled nonlinear oscillator systems, Phys. Rev. E 58, 7085-7090 (1998).
  27. Zhigang Zheng, Gang Hu and Bambi Hu, Phase slips and phase synchronization of coupled oscillators, Phys. Rev. Lett. 81, 5 318-5321 (1998).
  28. Zhigang Zheng and Gang Hu, From dynamics to statistical mechanics: 2-hard-disk system, Comm. Theor. Phys. 29, 43-50 (1998).
- 1999
29. Zhigang Zheng and Gang Hu, Polygonal approaches to the circular billiard: the Lyapunov exponent, Comm. Theor. Phys. 32, 221-228 (1999).

30. [Zhigang Zheng](#) and Xiaowen Li, Clustering behavior in globally coupled rotator systems, *Comm. Theor. Phys.* 32, 367-374 (1999).
31. [Zhigang Zheng](#), Ergodic properties and thermodynamics in anharmonic oscillator systems, *Comm. Theor. Phys.* 32, 549-556 (1999).
- 2000
32. [Zhigang Zheng](#), Bambi Hu and Gang Hu, Collective phase slips and phase synchronizations in coupled oscillator systems, *Phys. Rev. E* 62, 402-408 (2000).
33. Meng Zhan, [Zhigang Zheng](#), Gang Hu and Xihong Peng, Nonlocal chaotic phase synchronization, *Phys. Rev. E* 62, 3552-3557 (2000).
34. [Zhigang Zheng](#) and Bambi Hu, Collective topological dynamics in the Frenkel-Kontorova chains, *Phys. Rev. E* 62, 4294-4299 (2000).
35. [Zhigang Zheng](#), Gang Hu and Bambi Hu, Enhancement of phase synchronization through asymmetric couplings, *Phys. Rev. E* 62, 7501-7504 (2000).
36. [Zhigang Zheng](#) and Gang Hu, Generalized synchronization versus phase synchronization, *Phys. Rev. E* 62, 7882-7885 (2000).
37. [Zhigang Zheng](#), Bambi Hu and Gang Hu, Resonant steps in the discrete sine-Gordon chain, *Comm. Theor. Phys.* 33, 191 (2000).
38. [Zhigang Zheng](#), Gang Hu, Changsong Zhou, and Bambi Hu, Phase synchronizations in coupled chaotic systems: from high-dimensional to low-dimensional chaos, *Acta Physica Sinica* 49, 12, 2320-2327 (2000).
39. [Zhigang Zheng](#) and Xiaowen Li, Spatiotemporal dynamics and collective transport in coupled nonlinear systems, *China Science Abstracts* 6, 11, 78-81 (2000).
- 2001
40. [Zhigang Zheng](#), Discrete breathers in lattices of coupled oscillators, *Comm. Theor. Phys.* 35, 137-142 (2001).
41. Bambi Hu, Zonghua Liu and [Zhigang Zheng](#), Frequency locking in coupled chaotic systems, *Commun. Theor. Phys.* 35, 425-430 (2001).
42. [Zhigang Zheng](#) and Gang Hu, Phase desynchronization as a mechanism for transitions to high-dimensional chaos, *Comm. Theor. Phys.* 35, 682-688 (2001).
43. [Zhigang Zheng](#), Multistable spatiotemporal dynamics in the driven Frenkel-Kontorova lattice, *Comm. Theor. Phys.* 36, 37-43 (2001).
44. [Zhigang Zheng](#), Gang Hu and Bambi Hu, Collective directional transport in coupled nonlinear oscillators without external bias, *Phys. Rev. Lett.* 86, 11, 2273-2276 (2001).
45. [Zhigang Zheng](#), Frustration effect on synchronization and chaos in coupled oscillators, *Chin. Phys.* 10, 08, 703-707 (2001).



46. [Zhigang Zheng](#), Gang Hu and Bambi Hu, Phase synchronization in coupled oscillators: dynamical manifestations, *Chin. Phys. Lett.* 18, 7, 874-877 (2001).
47. [Zhigang Zheng](#) and Xiaowen Li, Biased motion in a symmetric periodic potential by breaking temporal symmetry, *Comm. Theor. Phys.* 36, 2, 151-156 (2001).
48. Gang Hu, [Zhigang Zheng](#), Li Yang and Wei Kang, Thermodynamic Second-law in Irreversible Processes of Chaotic Few-body Systems, *Phys. Rev. E (rapid communication)* 64, 045102 R (2001).  
2002
49. [Zhigang Zheng](#) and Changsong Zhou, Alternate phase synchronization in coupled chaotic oscillators, *Comm. Theor. Phys.* 37, 419 (2002).
50. [Zhigang Zheng](#), Phase-locking dynamics in coupled circle-map lattices, *Comm. Theor. Phys.* 37, 557 (2002).
51. [Zhigang Zheng](#), Xingang Wang and Michael C. Cross, Transitions from partial to complete generalized synchronizations in bidirectionally coupled chaotic oscillators, *Phys. Rev. E* 65, 056211 (2002).
52. [Zhigang Zheng](#) and Fuzhong Wang, Synchronized firing in coupled inhomogeneous excitable neurons, *Comm. Theor. Phys.* 38, 4, 415-420 (2002).
53. Daihai He, Lewi Stone and [Zhigang Zheng](#), Analysis of generalized synchronization in directionally coupled chaotic phase oscillators by local minimal fluctuations, *Phys. Rev. E* 66, 036208 (2002).
54. [Zhigang Zheng](#), M. C. Cross and Gang Hu, Collective directed transport of symmetrically coupled lattices in symmetric periodic potentials, *Phys. Rev. Lett.* 89, 154102 (2002).  
2003
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#### 6.6 教学论文及丛书

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#### 6.9 学术报告 (Academic Talks)

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11. Long-residual state and chaos synchronization, talk on DDAP3 (Singapore, 2004).
12. 混沌与运输中的几个问题, 973扩大会议报告(2.5小时), 昆明(2004).
13. 复杂网络与部分同步, 2005全国网络学术会议(大会特邀报告), 武汉(2005).
14. Tingxian Zhang and Zhigang Zheng全国网络学术会议(口头报告), Amplitude effect in phase synchronization of coupled oscillators, 2005
15. 复杂网络与混沌同步, 973学术会议(山东日照, 2005.7.2)
16. 非平衡统计物理教学的改革, 2005年热力学与统计物理会议(大会邀请报告, 大连, 2005.8)
17. Partial synchronization and Complex networks, 第二届全国复杂网络论坛, CCAST(大会邀请报告, 北京, 2005-10)
18. Synchronization: The Kuramoto model and beyond, 复杂系统论坛, CCAST(大会邀请报告, 北京, 2005-11)
19. 邀请报告: Frenkel-Kontorova模型的平衡态相变与非平衡运输 中国物理学会2005秋季会议 (2005)
20. 分会报告: Cooperative directed transport of charged particles in two-dimensional potential (with 陈宏斌), 中国物理学会2005秋季会议 (2005)
21. Invited talk: 合作定向运输, 当代理论物理与天体物理前沿问题研讨会, 邀请报告(厦门, 2006.4)
22. Invited Talk: Partial Synchronization on Complex Networks with a Few Shortcuts, StatPhys-Taiwan 2006 (Taipei, 2006.6)
23. Invited Talk: Cooperative Directional Transport in Two-Dimensional Ratchet Potential Fields, Second Cross Taiwan Strait Conference on Statistical Physics (Taiwan, 2006.7)
24. Invited talk: Complex Networks, Synchronizations and Patterns, Workshop on “Dynamical Chaos and Non-equilibrium Statistical Mechanics: From Rigorous Results to Applications in Nano-systems” (Singapore, 2006).

25. Invited talk: Dynamics of Collective Directional Transport, Workshop on “Dynamical Chaos and Non-equilibrium Statistical Mechanics: From Rigorous Results to Applications in Nano-systems” (Singapore, 2006).
26. Invited talk: 从部分同步到时空斑图, Third National Forum on Complex Dynamical Networks, CCAS T, Beijing, 2006.
27. Invited talk: Collective Directed Transport, 2007年物理学秋季会议, 南京
28. 分会报告: (with 王军), 2007年物理学秋季会议, 南京
29. Invited talk: From Ratchet to Molecular Motor: Collective Effects, Mini-symposium Program on Statistical Models and Their Applications, Beijing, 2007-10-8
30. Invited talk: Complex networks: from structures to emergence, Symposium on System Science and System Engineering, Wuhan, 2007-10
31. Invited talk: Pattern dynamics in two-dimensional Kuramoto media, 3<sup>rd</sup> Cross-strait Conference on Statistical Physics, Hangzhou-Jinhua, 2007.-11
32. Invited Talk: Collective Directed Transport, The 973 annual meeting, Guiyang, 2008-7
33. Invited Talk: Partial synchronization: Theory and Applications, The 4<sup>th</sup> Symposium on Complex Networks, Qingdao, 2008-7
34. Invited Talk: 非平衡统计物理若干重要问题, 统计物理研讨会, 厦门 (2009)
35. Invited Talk: Dynamics-based topology identification of complex networks, The 5<sup>th</sup> Symposium on Complex Networks, CCAST, Beijing, 2009-12
36. Invited Talk: Coupled Ratchets: Cooperative Directed Transport and Locomotion, 2010 NCTS January Workshop on Critical Phenomena and Complex Systems, Tsinghua University, Tsinchu, Taiwan, 2010-1
37. Invited Talk: Synchronization and Topology Identification of Complex Networks, 2010 NCTS January Workshop on Critical Phenomena and Complex Systems, Tsinghua University, Tsinchu, Taiwan, 2010-1
38. Invited Talk: Transport Rectification in Low-dimensional Lattices, Interdisciplinary Applications of Statistical Physics & Complex Networks, KITPC, Beijing (2011-3)
39. Invited Talk: Topology and Dynamics of Complex Networks: Topology Identifications, Dynamic Days Asia Pacific 7(DDAP7), Taipei, 2012-8
40. Invited Talk: Nonlinear wave dynamics of the Transport Process on Nonlinear Lattices, The XXIX International Colloquium on Group-Theoretical Methods in Physics (GROUP29), Tianjin, 2012-8
41. Invited Talk: Topology and Dynamics of Complex Networks: Topology Identifications, 2012年物理学秋季会议, Guangzhou, 2012-9

42. Invited Talk: Fluctuation Theorem and Free Energy Relation in Non-equilibrium Systems, International Symposium on Tsallis Entropy and Its Applications (TEIA), Wuhan, 2012-10
  43. Invited Talk: Time-varying Free Energy Theorem and heat conduction in nonequilibrium systems, The 2nd China National Conference on Statistical Physics and Complex Systems and the 7th Cross-Strait Conference on Statistical Physics, Qufu, 2013-07
  44. Invited Talk: Microscopic dynamics of energy transport on one-dimensional lattices, West-Lake International Workshop on Statistical Physics and Complex Systems, Hangzhou, 2013-11.
  45. Invited Talk: Dynamics of Rotator Chain with Dissipative Boundary: Energy Conduction, SPMCS2014 (4th International Workshop On Statistical Physics and Mathematics for Complex Systems 12-16 Oct, 2014, Yichang, China)
  46. Invited Talk: Synchronization of coupled oscillators: Ensemble order-parameter approach, 2015年默里·盖尔曼复杂性论坛, 华中师范大学, 武汉, 2015
- b. 系列讲座:
47. 非线性动力学与混沌, 徐州师范大学物理系系列讲座(11讲) (2005. 4).
  48. 非平衡统计物理, 2005年西部地区理论物理暑期讲习班 (9讲, 西北师范大学, 2005.8)
  49. Series talks: 非平衡系统的自组织理论, 2008年西部地区理论物理讲习班 (10讲, 云南大学, 2008.10)
  50. 复杂性物理专题, 玉溪师范学院理学院系列讲座 (7讲) (2013.9-10)。
  51. 统计物理学新进展专题, 玉溪师范学院理学院系列讲座 (7讲) (2-13.9-10)。
  52. 统计物理与复杂性专题, 曲阜师范大学系列讲座 (12讲) (2014-7)



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