

# CURRICULUM VITAE

## Personal Particulars

Name: Lifa Zhang

Sex: Male

Citizenship: Chinese

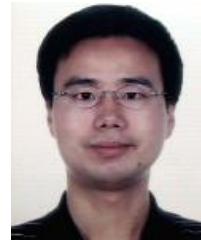
Place of Birth: Jiangsu, China

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## Education

- 2007-2010, Ph. D, Department of Physics, National University of Singapore (NUS)
- 2001-2004, M. Sc. in Theoretical Physics, Nanjing Normal University (NNU), China
- 1997-2001, B. Sc. in Physics (Teacher Training), NNU, China.

## Work Experience

- Jul.2015 - present, Professor, Department of Physics, NNU, Nanjing, China
- Jan. 2013 – Jun.2015, Postdoctoral Research Fellow in Dept. of Phys., the University of Texas at Austin, Austin, Texas, USA.
- Sep. 2010 – Dec.2012, Research Associate, in Department of Physics, NUS, Singapore.
- Aug. 2008 – Aug. 2010, Teaching assistant, Department of Physics, NUS, Singapore.
- Aug. 2004 -- Aug.2007, Lecturer, Nanjing Xiaozhuang University (NXU), China.

## Awards

- 2016, 100 Talents Plan, Nanjing Normal University, China
- 2014, Jiangsu Specially-appointed Professorship, Jiangsu Province, China
- 2012, Material Research Society of Singapore Metal
- 2011, Chinese Government Award for Outstanding Self-Financed Students Abroad
- 2011, Best Graduate Researcher Award, Faculty of Science, NUS.
- 2010, Best Presentation Award, Department of Physics, NUS.
- 2006, Excellence in Teaching Award, NXU, China.

## Research Interests

- Quantum transport in low dimensions, carriers including electron, phonon, and magnon;
- Fundamental theories in phononics, and magnonics;
- Phonon angular momentum and Chiral phonons: theory and applications;
- Various bosonic Hall effects including phonon, magnon Hall effects;
- Interfacial thermal transport, energy transport and conversion, heat dissipation.

## Professional Duties

- Phonons 2018, Nanjing, China, Conference Chair.
- The workshop on thermal transport 2016 (WTT2016), Nanjing, China, Conference Chair.
- 2014 APS March Meeting, Denver, USA, Session Chair (Z8 Focus Session).
- Member: American Physical Society (2011-present).
- Referee Duties: (1) Phys. Rev. Lett.; (2) Phys. Rev. B/E ; (3) Physica. B/E.

## List of Publications

<https://scholar.google.com/citations?user=HVJaROAAAAAJ>

<http://www.researcherid.com/rid/D-7537-2012>

<http://orcid.org/0000-0001-6108-1404>

1. T. Tsatsoulis, C. Illg, M. Haag, B. Y. Mueller, Lifa Zhang, and M. Fahnle, ``*Ultrafast demagnetization after femtosecond laser pulses: Transfer of angular momentum from the electronic system to magnetoelastic spin-phonon modes*'' *Phys. Rev. B* **93**, 134411 (2016).
2. Lifa Zhang and Qian Niu, ``*Chiral Phonons at High-Symmetry Points in Monolayer Hexagonal Lattices*,'' *Phys. Rev. Lett.* **115**, 115502 (2015).
3. Bo Chen and Lifa Zhang, ``*Optimized couplers for interfacial thermal transport*,'' *J. Phys.: Condens. Matter* **27**, 125401 (2015).
4. X. Lu, L. Zhang, W.G. Morrel, C.-Q Wu, B. Li, ``*Thermospin diode effect based on a quantum dot system*,'' *Physics Letters A* **378**, 3638(2014).
5. J. Cao, L. Zhang, S. Yan, X. Sun, ``*Reflectionless design of optical elements using impedance-tunable coordinate transformation*,'' *Appl. Phys. Lett.* **104**, 191102 (2014).
6. L. Zhang and Q. Niu, ``*Angular Momentum of Phonons and Einstein-de Haas Effect*,'' *Phys. Rev. Lett.* **112**, 085503 (2014).
7. L. Zhang, J. Ren, J.-S. Wang, and. B. Li, ``*Topological Magnon Insulator in Insulating Ferromagnet*,'' *Phys. Rev. B* **87**,144101 (2013).
8. L. Zhang, J.-T. Lu, J.-S. Wang, and B. Li, ``*Thermal transport across metal-insulator interface via electron-phonon interaction*,'' *J. Phys.: Condens. Matter* **25**, 445801 (2013).
9. L. Zhang, J. Thingna, D. He, J.-S. Wang and B. Li, ``*Nonlinearity enhanced interfacial thermal conductance and rectification*,'' *Europhysics. Lett.* **103**, 64002 (2013).
10. L. Zhang, J. Ren, J.-S. Wang, and. B. Li, ``*The phonon Hall effect: theory and application*,'' *J. Phys.: Cond. Matt.* **23**, 305402 (2011).
11. B. K. Agarwalla, L. Zhang, J.-S. Wang, and B. Li, ``*Phonon Hall effect in ionic crystals in the presence of static magnetic field*,'' *Eur. Phys. J. B* **81**, 197 (2011).
12. L. Zhang, P. Keblinski, J.-S. Wang, and B. Li, ``*Interfacial thermal transport in atomic junctions*,'' *Phys. Rev. B* **83**, 064303 (2011).
13. L. Zhang, J. Ren, J.-S. Wang, and B. Li, ``*Topological nature of phonon Hall effect*,'', *Phys. Rev. Lett.* **105**, 225901 (2010).
14. L. Hu, L. Zhang, M. Hu, J.-S. Wang, B. Li, and P. Keblinski, ``*Phonon interference at self-assembled monolayer interfaces: Molecular dynamics simulations*,'' *Phys. Rev. B* **81**, 235427 (2010).
15. L. Zhang, J.-S. Wang, and B. Li, ``*Ballistic thermal rectification in nanoscale three-terminal junctions*,'' *Phys. Rev. B* **81**, 100301(R) (2010).
16. L. Zhang, J.-S. Wang, and B. Li, ``*Phonon Hall effect in four-terminal junctions*,'' *New J. Phys.* **11**, 113038 (2009).
17. L. Zhang, Y. Yan, C.-Q. Wu, J.-S. Wang, B. Li, ``*Reversal of thermal rectification in quantum systems*,'' *Phys. Rev. B* **80**, 172301(2009).
18. J.-S. Wang and L. Zhang, ``*Phonon Hall thermal conductivity from Green-Kubo formula*,'' *Phys. Rev. B* **80**, 012301 (2009).
19. L. Zhang, J.-S. Wang, and B. Li, ``*Ballistic magneto-thermal transport in a Heisenberg spin chain at low temperatures*,'' *Phys. Rev. B* **78**, 144416 (2008).
20. L. Zhang and P. Tong, ``*Entanglement of periodic anisotropic XY chains*,'' *J. Phys. A: Math. Gen.* **38**, 7377 – 7388 (2005).
21. L. Zhang and P. Tong, ``*The finite-size effect on the entanglement of the quantum Ising Chain*,'' *Int. J. Mod. Phys. B*, Vol. 18, Nos. 17-19, 2564 (2004).