

Luwei Ge

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Education

- [Georgia Institute of Technology](#), Ph.D. Physics Spring 2020 (expected)
Advisor: [Martin Mourigal](#)
- [Fudan University](#), B.S. Physics Fall 2014
- [University of California, Berkeley](#), visiting student Fall 2012

Professional Experiences

- Graduate Teaching Assistant, Georgia Institute of Technology 2014 - 2017
- Graduate Research Assistant, Georgia Institute of Technology 2017 - present

Refereed Journal Publications

1. *Ba₈MnNb₆O₂₄: a model two-dimensional spin-5/2 triangular lattice antiferromagnet*, R. Rawl, **L. Ge**, Z. Lu, Z. Evenson, C. R. Dela Cruz, Q. Huang, M. Lee, E. S. Choi, M. Mourigal, J. Ma, H. D. Zhou, [Physical Review Materials](#) **3**, 054412 (2019); [arXiv:1905.01049](#).
2. *Lattice distortion effects on the frustrated spin-1 triangular-antiferromagnet A₃NiNb₂O₉ (A = Ba, Sr and Ca)*, Z. Lu, **L. Ge**, G. Wang, M. Russina, G. Guenther, C. R. Cruz, R. Sinclair, H. D. Zhou, J. Ma, [Physical Review B](#) **98**, 094412 (2018); [arXiv:1805.03986](#).
3. *Collector transport in SiGe HBTs operating at cryogenic temperatures*, H. Ying, J. Dark, A. P. Omprakash, B. R. Wier, **L. Ge**, U. Raghunathan, N. E. Lourenco, Z. E. Fleetwood, M. Mourigal, D. Davidović, and J. D. Cressler, [IEEE Transactions on Electron Devices](#) **65**, 3695-3703 (2018).
4. *The nature of spin excitations in the one-third magnetization plateau phase of Ba₃CoSb₂O₉*, Y. Kamiya, **L. Ge**, Tao Hong, Y. Qiu, D. L. Quintero-Castro, Z. Lu, H. B. Cao, M. Matsuda, E. S. Choi, C. D. Batista, M. Mourigal, H. D. Zhou, and J. Ma, [Nature Communications](#) **9**, 2666 (2018); [arXiv:1701.07971](#).
5. *Frustrated spin one on a diamond lattice in NiRh₂O₄*, J. R. Chamorro, **L. Ge**, J. Flynn, M. A. Subramanian, M. Mourigal, and T. M. McQueen, [Physical Review Materials](#) **2**, 034404 (2018), **Editors' Suggestion**; [arXiv:1701.06674](#).
6. *Spin order and dynamics in diamond-lattice Heisenberg antiferromagnets CuRh₂O₄ and CoRh₂O₄*, **L. Ge**, J. Flynn, J. A. M. Paddison, M. B. Stone, S. Calder, M. A. Subramanian, A. P. Ramirez, and M. Mourigal, [Physical Review B](#) **96**, 064413 (2017), **Editors' Suggestion**; [arXiv:1706.05881](#).
7. *Tunneling, gain, and recombination in SiGe heterojunction bipolar transistors operating at milliKelvin temperatures*, D. Davidović, H. Ying, J. Dark, B. R. Wier, **L. Ge**, N. E. Lourenco, A. P. Omprakash, M. Mourigal, and J. D. Cressler, [Physical Review Applied](#) **8**, 024015 (2017).
8. *Ba₈CoNb₆O₂₄: a spin-1/2 triangular-lattice Heisenberg antiferromagnet in the two-dimensional limit*, R. Rawl, **L. Ge**, H. Agrawal, Y. Kamiya, C. R. Dela Cruz, N. P. Butch, X. F. Sun, M. Lee, E. S. Choi,

J. Oitmaa, C. Batista, M. Mourigal, H. D. Zhou, and J. Ma, *Physical Review B* **95**, 060412 (2017), Rapid Communications; [arXiv:1612.04117](https://arxiv.org/abs/1612.04117).

9. *Operation of SiGe HBTs down to 70 mK*, H. Ying, B. R. Wier, J. Dark, N. E. Lourenco, L. Ge, A. P. Omprakash, M. Mourigal, D. Davidović, and J. D. Cressler, *IEEE Electron Device Letters* **38**, 12-15 (2017).

Contributed Conference Talks

1. *Nature of magnetic excitations in the spin-1/2 triangular antiferromagnet $Ba_3CoSb_2O_9$ in applied magnetic field*, APS March Meeting, Boston, MA (US) March 2019.
2. *Magnetic excitations of the frustrated ferromagnetic chain $LiCuSbO_4$* , APS March Meeting, Los Angeles, CA (US) March 2018.
3. *Magnetic properties of A-site antiferromagnetic spinels $CoRh_2O_4$ and $CuRh_2O_4$* , Joint Nanoscience and Neutron Scattering User Meeting, Oak Ridge, TN (US) August 2017.
4. *Magnetic properties of A-site antiferromagnetic spinels $CoRh_2O_4$ and $CuRh_2O_4$* , APS March Meeting, New Orleans, LA (US) March 2017.

Contributed Posters

1. *Magnetic excitations of the frustrated ferromagnetic chain $LiCuSbO_4$* , CRIDC Poster Competition, Atlanta, GA (US) February 2019.
2. *Magnetic excitations of the frustrated ferromagnetic chain $LiCuSbO_4$* , NHMFL Theory Winter School, Tallahassee, FL (US) January 2019.
3. *Spin structures and dynamics of a quasi-2D triangular spin-1/2 antiferromagnet*, NSF/DOE/AFOSR Quantum Science Summer School, Ithaca, NY (US) June 2018.
4. *Nature of spin excitations in a magnetization plateau*, CRIDC Poster Competition, Atlanta, GA (US) February 2018.
5. *Magnetic properties of A-site antiferromagnetic spinels $CoRh_2O_4$ and $CuRh_2O_4$* , HFM Conference, Taipei (Taiwan) September 2016.
6. *Magnetic excitations of the quasi-1D frustrated ferromagnet $LiCuSbO_4$* , SNS Second Target Station Workshop, Oak Ridge, TN (US) October 2015.