CURRICULUM VITAE

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1. Academic experience

- Ph.D. in Physics, Belarusian State University, Minsk, Republic of Belarus, 1994
  Dissertation title: "*Non-relativistic and Relativistic Coulomb Green functions and their application in atomic physics*"
  Advisor: Prof. L. I. Komarov
- B.S. in Physics (*with highest honors*, GPA=5.0/5.0), Belarusian State University, Minsk, Republic of Belarus, 1990

2. Work experience

09/2021 – present: Assistant Professor, Dept. of Physics, University of Connecticut
09/2018 – 08/2021: Assistant Professor, Dept. of Physics, Missouri University of Science & Technology
01/2018 – 08/2018: Research Professor, Dept. of Physics, Kansas State University
08/2014 – 01/2018: Research Associate Professor, Dept. of Physics, Kansas State University
06/2006 – 08/2014: Research Assistant Professor, Dept. of Physics, Kansas State University
09/2003 – 06/2006: Research associate, Dept. of Physics, Kansas State University
09/2001 – 09/2003: Visiting scientist, Dept. of Physics, Kansas State University
09/2000 – 09/2001: Post-doctoral Fellow with Prof. T. T. Gien
Dept. of Physics, Memorial University of Newfoundland, Canada
5/1998 – 5/1999: Guest Scientist with Prof. P. Fulde
Max Planck Institute for Physics of Complex Systems, Dresden, Germany
1/1995 – 9/2000: Research Fellow
Institute of Physics, National Academy of Science & Technology, Hanoi, Vietnam

3. Scholarly contributions

Over 95 papers with over **3,800** citations and ***h*-index=32** (as of 08/2021, according to Web of Science), over **5,100** citations and ***h*-index=39** (as of 08/2021, according to *Google Scholar*).

Science: 1 (I'm the leading theorist -see #19 below)
Nature Communications: 4 (I'm the leading theorist in two papers – see #3, 21, 27, 31 below)
Phys. Rev. Lett.: 9 (3 as 1st author and 2 as 2nd author – see #10, 30, 35, 36, 37, 61, 66, 72, 76 below)
PNAS (USA): 1 (see #9 below)
Invited reviews (in J. Phys. B): 2 (1st author and 2nd author – see #24, 55 below)

3.1 Books

1. C. D. Lin, **A.-T. Le**, C. Jin, and H. Wei, *Attosecond and Strong-Field Physics: Principles and Applications*, Cambridge University Press, 2018, ISBN: 9781107197763, 415 pages -- a graduate level textbook; DOI: https://doi.org/10.1017/9781108181839

3.2 Peer-reviewed publications

1. X. Zhao, S. Li, T. Driver, V. H. Hoang, **A. T. Le**, J. P. Cryan, A. Marinelli, and C. D. Lin, *Characterization of single shot attosecond pulses with angular streaking photoelectron spectra*, accepted to PRA.
2. S Xue, S. Yue, H. Du, B. Hu, and **A. T. Le**, *Vibronic coherence and quantum beats of O_2^+ based on laser pump-probe dissociation dynamics*, Phys. Rev. A **104**, 013101 (2021)
3. A. Sanchez, K. Amini, S. J. Wang, T. Steinle, B. Belsa, J. Danek, **A.T. Le**, X. Liu, R. Moshammer, T. Pfeiffer, M. Richter, J. Ullrich, S. Grafe, C.D. Lin, and J. Biegert, *Molecular structure retrieval directly from laboratory-frame photoelectron spectra in laser-induced electron diffraction*, Nature Communications **12**, 1520 (2021);
4. B. Belsa, K. Amini, X. Liu, A. Sanchez, T. Steinle, J. Steinmetzer, **A.T. Le**, R. Moshammer, T. Pfeifer, J. Ullrich, R. Moszynski, C.D. Lin, S. Grafe, and J. Biegert, *Laser-induced electron diffraction of the ultrafast umbrella motion in ammonia*, Structural Dynamics **8**, 014301 (2021) .
5. V.-H. Hoang and **A.T. Le**, *Factorization of high-harmonic generation yields in impurity-doped materials*, Phys. Rev. A 102, 023112 (2020); arXiv:1911.11300.
6. C. Jin, S.J. Wang, S.F. Zhao, **A.T. Le**, C.D. Lin, *Robust control of minima of high-order harmonics by fine-tuning the alignment of CO_2 molecules for shaping attosecond pulses and probing molecular alignment*, Phys. Rev. A **102**, 013108 (2020);
7. X. Liu, K. Amini, T. Steinle, A. Sanchez, M. Shaikh, B. Belsa, J. Steinmetzer, **A.T. Le**, R. Moshammer, T. Pfeifer, J. Ullrich, R. Moszynski, C.D. Lin, S. Grafe, J. Biegert, *Imaging an isolated water molecule using a single electron wave packet*, J. Chem. Phys. **151**, 024306 (2019);
8. Y. Malakar, W.L. Pearson, M. Zohrabi, B.Kaderiya, K. Raju, F.Ziaee, S. Xue, **A.T. Le**, I. Ben-Itzhak, D. Rolles, A. Rudenko, *Time-resolved imaging of bound and dissociating nuclear wave packets in strong-field ionized iodomethane*, Phys. Chem. Chem. Phys. **21**, 14090-14102 (2019);
9. K. Amini, M. Sclafani, T. Steinle, **A.T. Le**, A. Sanchez, C. Muller, J. Steinmetzer, L. Yue, J.R.M. Saavedra, M. Hemmer, M. Lewenstein, R. Moshammer, T. Pfeifer, M.G. Pullen, J. Ullrich, B. Wolter, R. Moszynski, F.J.G. de Abajo, C.D. Lin, S. Grafe, and J. Biegert, *Imaging the Renner-Teller effect using laser-induced electron diffraction*, PNAS **116**, 8173-8177 (2019).
10. Lixin He, Pengfei Lan, **A.-T. Le**, Baoning Wang, Bincheng Wang, Xiaosong Zhu, Peixiang Lu, and C. D. Lin, *Real-time observation of molecular spinning with angular high-harmonic spectroscopy*, Phys. Rev. Lett. **121**, 163201 (2018).
11. C. D. Lin, **A.T. Le**, C. Jin, and H. Wei, *Elements of the Quantitative Rescattering Theory*, J. Phys. B **51**, 104001 (2018)
12. S. Xue, H. Du, B. Hu, C. D. Lin, and **A.T. Le**, *Following coherent multichannel nuclear wave packets in pump-probe studies of O_2 with ultrashort laser pulses*, Phys. Rev. A **97**, 043409 (2018)
13. A. Alharbi, A. Boguslavskiy, D. Austin, N. Thire, D. Wood, P. Hawkins, F. McGrath, A. S. Johnson, B. Schmidt, F. Legare, J.P. Marangos, **A.T. Le**, and R. Bhardwaj, *Femtosecond Laser Mass Spectrometry and HHG Spectroscopy of Xylene Isomers*, Scientific Reports **8**, 3789 (2018)
14. X. Wang, **A.-T. Le**, Z. Zhou, H. Wei, and C.D. Lin, *Theory of retrieving orientation-resolved molecular information using time-domain rotational coherence spectroscopy*, Phys. Rev. A **96**, 023424 (2017);
15. V.-H. Hoang, V.-H. Le, C.D. Lin, and **A.T. Le**, *Retrieval of target structure information from laser-induced photoelectrons by few-cycle bicircular laser fields*, Phys. Rev. A **95**, 031402(R) (2017);

16. S. Zigo, **A.-T. Le**, P. Timilsina, and C.A. Trallero-Herrero, *Ionization Study of Isomeric Molecules in Strong-field Laser Pulses*, Scientific Reports **7**, 42149 (2017);
17. V.-H. Hoang, V.-H. Le, S.F. Zhao, and **A.T. Le**, *Influence of permanent dipole and dynamic core-electron polarization on tunneling ionization of polar molecules*, Phys. Rev. A **95**, 023407 (2017);
18. B.P. Wilson, K.D. Fulfer, S. Mondal, X. Ren, J. Tross, E.D. Poliakoff, J. Jose, **A.-T. Le**, R. R. Lucchese, C. Trallero-Herrero, *High-order harmonic generation from SF_6: Deconvolution of macroscopic effect*, J. Chem. Phys. **145**, 224305 (2016);
19. B. Wolter, M. G. Pullen, **A.-T. Le**, M. Baudisch, K. Doblhoff-Dier, A. Senftleben, M. Hemmer, C. D. Schröter, J. Ullrich, T. Pfeifer, R. Moshammer, S. Gräfe, O. Vendrell, C. D. Lin, and J. Biegert, *Ultrafast electron diffraction imaging of bond breaking in di-ionized acetylene*, Science **354**, 308-312 (2016);
20. N.T. Nguyen, R.R. Lucchese, C.D. Lin, and **A.T. Le**, *Probing and extracting structure of vibrating SF6 molecules with inner-shell photoelectrons*, Phys. Rev. A **93**, 063419 (2016);
21. M.G. Pullen, B. Wolter, **A.T. Le**, M. Baudisch, M. Sclafani, H. Pires, C.D. Schroter, J. Ullrich, R. Moshammer, T. Pfeifer, C. D. Lin, and J Biegert, *Influence of orbital symmetry on diffraction imaging with rescattering electron wave packets*, Nature Commun. **7**, 11922 (2016);
22. Y. Ito, C. Wang, **A.T. Le**, M. Okunishi, D. Ding, C.D. Lin, and K. Ueda, *Extracting Conformational Structure Information of Benzene Molecules via Laser-induced Electron Diffraction*, Structural Dynamics **3**, 034303 (2016);
23. X. Wang, **A.T. Le**, C. Yu, R. R. Lucchese, and C. D. Lin, *Retrieving transient conformational molecular structure information from laboratory-frame photoelectron angular distributions*, Sci. Rep. **6**, 23655 (2016);
24. **A.T. Le**, H. Wei, C. Jin, and C.D. Lin, *Strong-field approximation in high-order harmonic generation with mid-infrared lasers*, **PhD Tutorial review paper in** J. Phys. B **49,** 053001 (2016);
25. S.F. Zhao, **A.T. Le**, C. Jin, X. Wang, and C. D. Lin, *An analytical model for calibrating laser intensity in strong-field ionization experiments*, Phys. Rev. A **93**, 023413 (2016);
26. C. Yu, H. Wei, X. Wang, **A.T. Le**, R. Lu, and C.D. Lin, *Reconstruction of two-dimensional molecular structure with laser-induced electron diffraction from laser-aligned polyatomic molecules*, Sci. Rep. **5**, 15753 (2015);
27. M. Pullen, B. Wolter, **A. T. Le**, M. Baudisch, M. Hemmer, A. Senftleben, C. D. Schröter, J. Ullrich, R. Moshammer, C. D. Lin, and J. Biegert, *Imaging aligned polyatomic molecules with laser-induced electron diffraction*, Nature Comm. **6**, 7262 (2015);
28. H. Wei, **A. T. Le**, T. Morishita, C. Yu, and C. D. Lin, *Benchmarking accurate spectral phase retrieval of single attosecond pulses*, Phys. Rev. A **91**, 023407 (2015);
29. C. Jin, G. Wang, **A. T. Le**, and C. D. Lin, *Route to Optimal Generation of keV High-Order Harmonics with Synthesized Two-Color Laser Fields*, Sci. Rep. 4, 7067 (2014);
30. **A. T. Le**, H. Wei, C. Jin, V. N. Tuoc, T. Morishita, and C. D. Lin, *Universality of returning electron wave packet in high-order harmonic generation with mid-infrared laser pulses*, Phys. Rev. Lett. 113, 033001 (2014);
31. C. Jin, G. Wang, H. Wei, **A. T. Le**, and C. D. Lin, *Waveforms for Optimal Sub-keV High-Order Harmonics with Synthesized Two- or Three-Color Laser Fields*, Nature Communications **5**, 4003 (2014).
32. X. Ren, V. Makhija, **A. T. Le**, J. Tross, S. Mondal, C. Jin, V. Kumarappan, and C. Trallero-Herrero, *Measuring angle-dependent photoionization cross section from aligned nitrogen using high harmonic generation*, Phys. Rev. A **88**, 043421 (2013);
33. **A. T. Le**, R. R. Lucchese, and C. D. Lin, *High-harmonic generation from molecular isomers with mid-infrared intense laser pulses*, Phys. Rev. A **88**, 021402(R) (2013);
34. **A. T. Le**, R. R. Lucchese, and C. D. Lin, *Quantitative rescattering theory of high harmonic generation from polyatomic molecules*, Phys. Rev. A **87**, 063406 (2013);

35. M. C. H. Wong, **A. T. Le**, A. F. Alharbi, A. E. Boguslavskiy, R. R. Lucchese, J.-P. Brichta, C. D. Lin, and V. R. Bhardwaj, *High Harmonic Spectroscopy of Cooper Minimum in Molecules*, Phys. Rev. Lett. **110**, 033006 (2013);
36. J. Xu, C. I. Blaga, A. D. DiChiara, E. Sistrunk, K Zhang, Z. Chen, **A. T. Le**, T. Morishita, C. D. Lin, P. Agostini, and L. F. DiMauro, "*Laser-induced electron diffraction for probing rare gas atoms"*, Phys. Rev. Lett. **109**, 233002 (2012);
37. **A. T. Le**, T. Morishita, R. R. Lucchese, and C. D. Lin, "*Theory of high harmonic generation for probing time-resolved large-amplitude molecular vibrations with few-cycle intense lasers*", Phys. Rev. Lett. **109**, 203004 (2012);
38. C. D. Lin, C. Jin, **A. T. Le**, and R. R. Lucchese, "*Probing molecular frame photoelectron angular distributions via high-order harmonic generation from aligned molecules"*, J. Phys. B **45**, 194010 (2012);
39. G. Wang, C. Jin, **A. T. Le**, and C. D. Lin, "*On the conditions of extracting photoionization cross sections from laser-induced high-order harmonic spectra*", Phys. Rev. A **86**, 015401 (2012);
40. C. Jin, J. B. Bertrand, R. R. Lucchese, H. J. Worner, P. B. Corkum, D. M. Villeneuve, **A. T. Le**, and C. D. Lin, "*Intensity dependence of multiple-orbital contributions and shape resonance in high-order harmonic generation of aligned N_2 molecules*", Phys. Rev. A **85**, 013405 (2012);
41. C. Trallero-Herrero, C. Jin, B. Schmidt, A. Shiner, D. M. Villeneuve, P. B. Corkum, C. D. Lin, F. Legare, and **A. T. Le,** "*Generation of broad XUV continuous high harmonic spectra and isolated attosecond pulses with intense mid-infrared lasers*", J. Phys. B **45**, 011001 (2012);
42. G. Wang, C. Jin, **A. T. Le**, and C. D. Lin, "*Influence of gas pressure on high-order harmonic generation of Ar and Ne*", Phys. Rev. A. **84**, 053404 (2011);
43. H. Li, D. Ray, S. De, I. Znakovskaya, W. Cao, G. Laurent, Z. Wang, M. F. Kling, **A. T. Le**, and C. L. Cocke, "*Orientation dependence of the ionization of CO and NO in an intense femtosecond two-color laser field*", Phys. Rev. A **84**, 043429 (2011);
44. C. Jin, **A. T. Le**, C. Trallero-Herrero, and C. D. Lin, "*Generation of isolated attosecond pulses in the far field by spatial filtering with an intense few-cycle mid-infrared laser*", Phys. Rev. A **84**, 043411 (2011);
45. **A. T. Le** and C. D. Lin, *Polarization states of high harmonic generation from aligned molecules*, J. Mod. Optics **58**, 1158-1165 (2011);
46. C. Jin, **A. T. Le**, and C. D. Lin, *Analysis of effects of macroscopic propagation and multiple molecular orbitals on the minimum in high-order harmonic generation of aligned CO_2*, Phys. Rev. A **83**, 053409 (2011);
47. C. Jin, H. J. Woerner, V. Tosa, **A. T. Le**, J. B. Bertrand, R. R. Lucchese, P. B. Corkum, D. M. Villeneuve, and C. D. Lin, *Separation of Target Structure and Medium Propagation Effects in High-Harmonic Generation*, Fast Track Comm., J. Phys. B **44**, 095601 (2011);
48. S. F. Zhao, C. Jin, R. R. Lucchese, **A. T. Le**, and C. D. Lin, *High-order harmonic generation of gas-phase H_2O molecules*, Phys. Rev. A **83**, 033409 (2011);
49. C. Jin, **A. T. Le**, and C. D. Lin, *Medium propagation effects in high harmonic generation of Ar and N_2*, Phys. Rev. A **83**, 023411 (2011);
50. D. Ray, Z. Chen, S. De, W. Cao, I. V. Litvinyuk, **A. T. Le**, C. D. Lin, M. F. Kling, and C. L. Cocke, *Momentum spectra of electrons rescattered from rare gas targets following their extraction by one- and two-color femtosecond laser pulses*, Phys. Rev. A **83**, 013410 (2011);
51. S. F. Zhao, J. Xu, C. Jin, **A. T. Le**, and C. D. Lin, *Effect of orbital symmetry on the orientation dependence of strong field tunneling ionization of nonlinear polyatomic molecules*, J. Phys. B **44**, 035601 (2011);
52. S. F. Zhao, C. Jin, **A. T. Le**, and C. D. Lin, *Effect of improved molecular potential on strong field tunneling ionization of molecules*, Phys. Rev. A **82**, 035402 (2010).

53. J. Xu, Z. J. Chen, **A. T. Le** and C. D. Lin, *Self-imaging of molecules from diffraction spectra by laser-induced rescattering electrons*, Phys. Rev. A **82**, 033403 (2010).
54. **A. T. Le**, R.R. Lucchese, and C.D. Lin, *Polarization and ellipticity of high-order harmonics from aligned molecules generated by linearly polarized intense laser pulses*, Phys. Rev. A **82**, 023814 (2010).
55. C. D. Lin, **A. T. Le**, Z. Chen, T. Morishita, and R. R. Lucchese, *Strong field rescattering physics - self-imaging of a molecule by its own electrons*, **Topical Review** in J. Phys. B **43**, 122001 (2010).
56. S. F. Zhao, C. Jin, **A. T. Le**, T. F. Jiang, and C. D. Lin, *Determination of structure parameters in strong field tunneling ionization theory of molecules*, Phys. Rev. A **81**, 033423 (2010).
57. C. Jin, **A. T. Le**, S.F. Zhao, R.R. Lucchese, and C.D. Lin, *Theoretical study of photoelectron angular distributions in single-photon ionization of aligned N_2 and CO_2*, Phys. Rev. A **81**, 033421 (2010).
58. S. F. Zhao, C. Jin, **A. T. Le**, T. F. Jiang, and C. D. Lin, *Analysis of Angular Dependence of Strong Field Tunneling Ionization for CO_2*, Phys. Rev. A **80**, 051402(R) (2009).
59. **A. T. Le**, R. R. Lucchese, and C. D. Lin, *Uncovering multiple orbitals influence in high harmonic generation from aligned N_2*, Fast Track Comm., J. Phys. B **42**, 211001 (2009).
60. **A. T. Le**, R. R. Lucchese, S. Tonzani, T. Morishita, and C. D. Lin, *Quantitative Rescattering Theory for high-order harmonic generation from molecules*, Phys. Rev. A **80**, 013401 (2009).
61. **A. T. Le**, R. R. Lucchese, M. T. Lee, and C. D. Lin, *Probing molecular frame photoionization via laser generated high-order harmonics from aligned molecules*, Phys. Rev. Lett. **102**, 203001 (2009).
62. C. Jin, **A. T. Le**, and C. D. Lin, *Retrieval of Target Photo-Recombination Cross Sections from High-Order Harmonics Generated in a Macroscopic Medium*, Phys. Rev. A **79**, 053413 (2009).
63. Z. Chen, **A. T. Le**, T. Morishita and C. D. Lin, *Quantitative rescattering theory for laser-induced high-energy plateau photoelectron spectra*, Phys. Rev. A **79**, 033409 (2009);
64. S. Micheau, Z. Chen, T. Morishita, **A. T. Le**, and C.D. Lin, *Robust carrier-envelope phase retrieval of few-cycle laser pulses from high-energy photoelectron spectra in above-threshold ionization of atoms*, J. Phys. B **42**, 065402 (2009).
65. Z. Chen, **A. T. Le**, T. Morishita, and C. D. Lin, *Origin of plateau and species dependence of laser-induced high-energy photoelectron spectra*, Fast Track Comm., J. Phys. B 42, 061001 (2009).
66. S. Micheau, Z. Chen, **A. T. Le**, J. Rauschenberger, M. F. Kling, and C. D. Lin, *Accurate retrieval of target structures and laser parameters of few-cycle pulses from photoelectron momentum spectra*, Phys. Rev. Lett. **102**, 073001 (2009).
67. S. Micheau, Z. Chen, **A. T. Le**, and C.D. Lin, *Quantitative rescattering theory for nonsequential double ionization of atoms by intense laser pulses*, Phys. Rev. A **79**, 013417 (2009).
68. S. Minemoto, T. Umegaki, Y. Oguchi, T. Morishita, **A. T. Le**, S. Watanabe, and H. Sakai, *Retrieval of atomic structure from high-order harmonic spectra*, Phys. Rev. A **78**, 061402(R) (2008).
69. **A. T. Le**, T. Morishita, and C. D. Lin, *Extraction of the species dependent dipole amplitude and phase from high-order harmonic spectra in rare gas atoms*, Phys. Rev. A **78**, 023814 (2008).
70. J. Xu, **A. T. Le**, T. Morishita, and C. D. Lin, *Signature of Ericson Fluctuations in helium inelastic scattering cross sections near the double ionization threshold*, Phys. Rev. A. 78, 012701 (2008).
71. X. X. Zhou, Z. Chen, T. Morishita, **A. T. Le**, and C. D. Lin, *Retrieval of electron-atom scattering cross sections from laser-induced electron rescattering of atomic negative ions in intense laser fields*, Phys. Rev. A **77**, 053410 (2008).
72. D. Ray, B. Ulrich, I. Bocharova, C. Maharajan, P. Ranitovic, B. Gramkow, M. Magrakvelidze, S. De, I. V. Litvinyuk, **A. T. Le**, T. Morishita, C. D. Lin, G. G. Paulus, and C. L. Cocke, *Large-angle electron diffraction structure in laser-induced rescattering from rare gases*, Phys. Rev. Lett. **100,** 143002 (2008).

73. V. H. Le, N. T. Nguyen, C. Jin, **A. T. Le**, and C. D. Lin, *Retrieval of interatomic separations of molecules from laser-induced high-order harmonic spectra*, J. Phys. B **41**, 085603 (2008).
74. **A. T. Le**, R. D. Picca, P.D. Fainstein, D. A. Telnov, M. Lein, and C.D. Lin, *Theory of high-order harmonic generation from molecules by intense laser pulses*, Fast Track Comm., J. Phys. B **41**, 081002 (2008).
75. T. Morishita, **A. T. Le**, Z. Chen, and C. D. Lin, *Potential for ultrafast dynamic chemical imaging with few-cycle infrared lasers*, New Journal of Physics **10**, 025011 (2008).
76. T. Morishita, **A. T. Le**, Z. Chen, and C. D. Lin, *Accurate retrieval of structural information from laser-induced photoelectron and high-harmonic spectra by few-cycle laser pulses*, Phys. Rev. Lett. **100,** 013903 (2008).
77. Z. Chen, T. Morishita, **A. T. Le**, and C. D. Lin, *Analysis of two-dimensional high-energy photoelectron momentum distributions in single ionization of atoms by intense laser pulses*, Phys. Rev A 76, 043402 (2007).
78. V. H. Le, **A. T. Le**, R. H. Xie, and C. D. Lin, *Theoretical analysis of dynamic chemical imaging with lasers using high-order harmonic generation*, Phys. Rev. A **76**, 013414 (2007).
79. **A. T. Le**, X.-M. Tong, and C. D. Lin, *Alignment dependence of high-order harmonic generation from CO_2*, J. Mod. Optics **54**, 967 (2007).
80. Z. Chen, T. Morishita, **A. T. Le**, M. Wickenhauser, X. M. Tong, and C. D. Lin, *Analysis of two-dimensional photoelectron momentum spectra and the effect of the long-range Coulomb potential in single ionization of atoms by intense lasers*, Phys. Rev. A **74**, 053405 (2006).
81. P. Barragan, **A. T. Le**, and C. D. Lin, *Hyperspherical close-coupling calculations for electron capture cross sections in low energy Ne^{10+} + H(1s) collisions*, Phys. Rev. A **74**, 012720 (2006);
82. **A. T. Le**, X.-M. Tong, and C. D. Lin, *Evidence of two-center interference in high-order harmonic generation from CO_2*, Phys. Rev. A **73**, 041402(R) (2006).
83. **A. T. Le**, T. Morishita, X.-M. Tong, and C. D. Lin, *Signature of chaos in high-lying doubly-excited states of helium atom*, Phys. Rev. A **72**, 032511 (2005).
84. C. N. Liu, S. C. Cheng, **A. T. Le**, and C. D. Lin, *Charge transfer in slow collisions of C^{6+} with H below 1 keV/amu*, Phys. Rev. A **72**, 012717 (2005).
85. **A. T. Le**, M. W. J. Bromley, and C. D. Lin, *Positronium formation in positron-Li and positron-Na collisions at low energies*, Phys. Rev. A **71**, 032713 (2005).
86. **A. T. Le** and C. D. Lin, *Muon transfer from muonic hydrogen to atomic oxygen and nitrogen*, Phys. Rev. A **71**, 022507 (2005).
87. T. G. Lee, M. Hesse, **A. T. Le**, and C. D. Lin, *Charge transfer in slow collisions of O^{8+} and Ar^{8+} ions with H(1s) below 2 keV/amu*, Phys. Rev. A **70**, 012702 (2004);
88. **A. T. Le**, C. D. Lin, L. F. Errea, L. Mendez, A. Riera, and B. Pons, *Comparison of Hyperspherical vs Common Reaction Coordinates Close-Coupling Methods for ion-atom collisions at low energies*, Phys. Rev. A **69**, 062703 (2004);
89. M. Hesse, **A. T. Le**, and C. D. Lin, *Protonium formation in antiproton-hydrogen collision at low energies by a new diabatic approach*, Phys. Rev. A **69**, 052712 (2004);
90. C. N. Liu, **A. T. Le**, and C. D. Lin, *Charge transfer in slow collisions of C^{4+} with H below 1 keV/amu*, Phys. Rev. A **68**, 062702 (2003);
91. T. G. Lee, **A. T. Le**, and C. D. Lin, *Charge transfer and excitation in slow 20 eV-2 keV H^++D(1s) collisions*, J. Phys. B **36**, 4081 (2003);
92. **A. T. Le**, C. N. Liu, and C. D. Lin, *Charge transfer in slow collisions between H^+ with Na*, Phys. Rev. A **68**, 012705 (2003);
93. **A. T. Le**, M. Hesse, T. G. Lee, and C. D. Lin, *Hyperspherical close coupling calculations for charge transfer cross sections in Si^{4+}+H(D) and Be^{4+}+H collisions at low energies*, J. Phys. B **36**, 3281 (2003);

94. C. N. Liu, **A. T. Le**, T. Morishita, B. D. Esry, and C. D. Lin, *Hyperspherical close coupling calculations for charge transfer cross sections in He^{2+}+H(1s) collisions at low energies*, Phys. Rev. A **67**, 052705 (2003);
95. **Le Anh Thu** and L. I. Komarov, *Operator method in solving non-linear equations of the Hartree-Fock type*, J. Phys.: Cond. Matt. **10**, 11679 (1998).
96. **Le Anh Thu**, L. V. Hoang, L. I. Komarov, and T. S. Romanova, *Relativistic dynamical polarizability of Hydrogen-like atoms*, J. Phys. B: At. Mol. Opt. Phys **29**, 2897 (1996).
97. **Le Anh Thu**, L. V. Hoang, L. I. Komarov, and T. S. Romanova, *Operator representation of the Dirac Coulomb Green function and relativistic polarizability of Hydrogen-like atoms*, J. Phys. B: At. Mol. Opt. Phys. **27**, 4083 (1994).
98. L. V. Hoang, T. Viloria, and **Le Anh Thu**, *On the five-dimensional Hydrogen-like atom*, J. Phys. A: Math. Gen. **24**, 3021 (1991).
99. **Le Anh Thu** and L.V. Hoang, *On the Coulomb-Green function in five-dimensional space*, Izv. Akad. Nauk BSSR (ser. Fiz.-Mat. Nauk) **11**, N6, 44-49 (1991) (in Russian).

3.3 Book Chapters & Conference Proceedings

1. X Liu, K Amini, T Steinle, A Sanchez, M Shaikh, B Belsa, J Steinmetzer, **A.T. Le**, R Moshammer, T Pfeifer, J Ullrich, CD Lin, S Gräfe, J Biegert, *Imaging an isolated water molecule with an attosecond electron wave packet*, Journal of Physics: Conference Series **1412**, 072047 (2020).
2. K Amini, T Steinle, M Sclafani, M Shaikh, A Sanchez, X Liu, **A.T. Le**, J Steinmetzer, T Pfeiffer, R Moshammer, J Ullrich, M Lewenstein, R Moszynski, JG de Abajo, CD Lin, S Gräfe, J Biegert, *Ultrafast imaging of the Renner-Teller effect in a field-dressed molecule*, Journal of Physics: Conference Series **1412**, 092001 (2020)
3. **A.T. Le**, M. Centurion, and C. D. Lin, *Elements of structure retrieval in ultrafast electron and laser-induced electron diffraction from aligned polyatomic molecules*, Book Chapter in ***Attosecond molecular dynamics***, eds. by F. Lepine and M. Vrakking, Royal Society of Chemistry, pp. 462-493 (2018).
4. S.F. Zhao, **A.-T. Le,** J. Cheng, X. Wang, X.X. Zhou, C.D. Lin, *The possibility for alibrating laser intensity in strong-field-ionization experiments*, Journal of Physics: Conference Series **875**, 032008 (2017).
5. M. G Pullen, B. Wolter, **A.-T.Le**, M. Baudisch, M. Hemmer, A. Senftleben, M Sclafani, C.D. Schroeter, J. Ullrich, R. Moshammer, C.D. Lin, J. Biegert, *Polyatomic molecular structure retrieval using laser-induced electron diffraction*, Journal of Physics: Conference Series **635**, 072051 (2015).
6. T. Umegaki, T. Morishita, S. Minemoto, Y. Oguchi, A.-T. Le, S. Watanabe, H. Sakai, *Accurate retrieval of atomic structures from high-order harmonic spectra*, Journal of Physics: Conference Series **194**, 112005 (2009).
7. C. D. Lin, **A. T. Le** and Z. Chen, *Theory of Dynamic Imaging of Molecules with intense infrared laser pulses*, in *"**Quantum Dynamic Imaging: Theoretical and Numerical Methods**"*, eds.: A. D. Bandrauk and M Y Ivanov, Springer, pp. 89-106 (2011).
8. M. W. J. Bromley, J. Mitroy, S. A. Novikov, **A. T. Le**, and C. D. Lin, *Positron-atom bound states and interactions*, in ***Photonic, Electronic and Atomic Collisions***, pp. 407-414, eds.: P.D.Fainstein *et al* (World Scientific, Singapore, 2006).
9. C. D. Lin, **A. T. Le**, T. G. Lee, and C. N. Liu, *New and old theoretical tools for evaluating cross sections for ion-atom collisions*, AIP Conf. Proc. **771**, 229-238 (2005).

3.4 Other publications

1. V. Makhija, X. Ren, D. Gockel, **A.T. Le**, and V. Kumarappan, *Orientation Resolution through Rotational Coherence Spectroscopy*, arXiv:1611.06476
2. **A.-T. Le** and C. D. Lin, *Ultrafast optics: Imaging a Chemical Reaction*, Nature Photonics **4**, 671 (2010).
3. **A.-T. Le**, R. D. Picca, P. D. Fainstein, D. A. Telnov, M. Lein, and C. D. Lin, *Ultrafast self-imaging of molecules under intense laser pulses*, Euro Physics News, V. 39, Number 4, p. 19 (2008)

3.5 Representative presentations

- *Quantitative Rescattering Model for High-Harmonic Generation in Doped Materials*, ***Invited Talk***, LPHYS'19, Gyeongju, South Korea, July 8-12, 2019.
- *Dynamic Imaging of Chemical Reactions with Few-Cycle Intense Laser Pulses*, ***Invited Talk***, ICCSE-4 Conference, Ho Chi Minh city, Vietnam, July 24-27, 2019
- *High-harmonic generation in doped solids: a perspective from atomic and molecular strong-field physics*, ***Seminar***, Ton Duc Thang University, Ho Chi Minh city, Vietnam, July 23, 2019
- *High-harmonic generation in doped solids: a perspective from atomic and molecular strong-field physics*, ***Seminar***, Hanoi University of Technology, Hanoi, Vietnam, July 15, 2019
- *Probing coherent multichannel nuclear wave packets with ultrashort laser pulses*, ***Invited Talk,*** Workshop on "Trends in Attosecond and Strong-field Physics", Aarhus University, Denmark, Jan. 31, 2019.
- *Probing spatial and spectroscopic structure information with femtosecond intense laser fields*, ***Invited talk***, ACS Meeting, Symposium on Strong Field Chemistry, Boston August 21, 2018.
- *Ultrafast imaging with laser-induced electron diffraction*, ***Invited talk***, Workshop on Trends in Ultrafast Laser Science, August 16-18, 2017, Boulder, Colorado.
- *Rescattering physics and ultrafast molecular imaging*, ***Colloquium***, Department of Physics, Kansas State University, Feb. 16, 2017
- *Imaging polyatomic molecules with ultrafast laser-induced electron diffraction*, ***Invited talk***, Ultrafast Nonlinear Imaging and Spectroscopy conference, SPIE Optics and Photonics, San Diego, August 28, 2016.
- *Strong field and attosecond physics: progress and opportunities*, ***Invited talk***, Ton Duc Thang University, Vietnam, June 23, 2016.
- *Retrieval of two-dimensional molecular structure with laser-induced electron diffraction from laser-aligned polyatomic molecules*, Talk at ATTO15, July 10, 2015, Saint-Sauveur, Quebec, Canada.
- *High harmonic generation with intense mid-infrared laser pulses*, ***Invited talk,*** IWAQD10 Workshop, University of Electro-Communications, Tokyo, Japan, Jan. 23, 2014.
- *Imaging molecular structure with ultrafast intense laser pulses*, ***Colloquium,*** Department of Physics, Kansas State University, Nov. 11, 2013
- *Theoretical treatment of high harmonic generation from dynamically evolving systems*, ***Invited talk,*** University of Pedagogy, Ho Chi Minh city, Vietnam, June 17, 2013.
- *Ultrafast intense laser-matter interaction: progress, challenge, and opportunities*, ***Invited talk,*** Institute of Physics, Hanoi, Vietnam, May 28, 2013.
- *Imaging chemical reaction with ultrafast intense laser pulses*, ***Invited talk***, Hanoi University of Science and Technology, Vietnam, May 20, 2013.
- *Theoretical treatment of high harmonic generation from dynamically evolving system*, ***Invited talk***, Workshop on Intense Fields and Attosecond Science, Aarhus University, Sept. 6, 2012.
- *High harmonic generation: from microscopic to macroscopic world*, ***Invited talk***, OSA's 95th Annual Meeting *Frontiers in Optics & Laser Science XXVII*, San Jose, CA, Oct 19, 2011.

- *Accurate macroscopic simulation of high harmonic generation*, ***Invited talk***, RIKEN Advanced Institute, Japan, July 14, 2011.
- *Towards ultrafast dynamic chemical imaging by intense laser pulses*, ***Invited talk***, Argonne National Laboratory, Oct. 15, 2010.
- *Extraction of Fixed-in-Space photoionization cross section and phase with high-order harmonic generation from aligned molecules*, ***Invited talk*** at 41st DAMOP meeting, Houston, May 29, 2010.
- *Influence of multiple orbitals on high harmonic generation from aligned molecules*, Talk at Workshop on Super Intense Laser-Atom Physics, Zion National Park, USA, Sept. 23, 2009.
- *Probing Fixed-in-Space molecular structures with high harmonic generation,* ***Invited talk*** at the Second Intl. Conference on Attosecond Physics, Manhattan, Kansas, July 30, 2009.
- *Quantitative rescattering theory for high-order harmonic generation from aligned molecules*, Talk at 40th DAMOP meeting, Charlottesville, Virginia, May 22, 2009.
- *Dynamic imaging with high harmonic generation by few-cycle laser pulses*, Talk at Dept. of Chemistry, Kansas State University, March 24, 2009.
- *Accurate retrieval of atomic and molecular structure from high-order harmonic spectra*, Talk at 39th DAMOP meeting, State College, Pennsylvania, May 29, 2008.
- *Accurate retrieval of atomic and molecular structure from high harmonic generation and electron momentum spectra*, Talk at Dept. of Chemistry, Northwestern University, Evanston, Aug. 17, 2007.
- *Evidence of two-center interference in high-order harmonic generation from CO_2*, Talk at 37th DAMOP meeting, Knoxville, Tennessee, May 19, 2006.
- *Antihydrogen formation in low energy collisions of antiproton with excited positronium*, Talk at 35th DAMOP meeting, Tucson, AZ, May 28, 2004.
- *Hyperspherical close coupling method: recent applications to ion-atom and positron-atom collisions*, Talk at 34th DAMOP meeting, Boulder, CO, May 21, 2003.

4. Previous Research Grants and Contracts

- Chemical Sciences, Geosciences and Biosciences Division, Office of Basic Energy Sciences, Office of Science, U. S. Department of Energy under **Grant No. DE-FG02-86ER13491**
  From 2006-2018, renewable every three years, PI: I. Ben-Itzhak (director of J.R. Macdonald Laboratory); I was a senior personnel,
- National Science Foundation under **Award No. IIA-1430493**
  From 2015-2017; PI: I. Ben-Itzhak (director of J.R. Macdonald Laboratory); I was a senior personnel

5. Teaching

At Missouri University of Science and Technology

- Physics 5001: *Introduction to Atomic, Molecular, and Optical Physics* (Graduate level), Fall 2020
- Physics 6010: *Seminar*, Spring 2020, Spring & Fall 2019, Fall 2018
- Physics 2135 (recitation) *Engineering Physics II*, Spring 2021 and 2020, Spring & Fall 2019, Fall 2018

At Kansas State University

- PHYS *850 Theory of Atomic Structure and Atomic Interactions* – Spring 2018.
- PHYS *707 Topics in Physics* (*Molecular structures and spectroscopy: learning with Gaussian/Gamess quantum chemistry software*) – Fall 2016.
- *Engineering Physics* (Studio) Fall 2011 (38 students) at Kansas State University.

- *Descriptive Physics* (Studio) Spring 2011 (10 students) at Kansas State University.
- *General Physics 1* (recitation) Spring 2003 (43 students) at Kansas State University.
- *General Physics 2* (recitation) Fall 2002 (45 students) at Kansas State University.
- *Descriptive Physics* (recitation) Spring 2002 (43 students) at Kansas State University.

6. Department and University Service

At Missouri University of Science and Technology

- Organizer of Department Colloquium Series (Fall 2018, Spring & Fall 2019, and Spring 2020)
- Chair of Schearer Prize Competition (Fall 2018)
- Committee member of Schearer Prize Competition (Fall 2019)
- Committee member of the Library and Learning Resources Committee (LLRC) (2020 – present)

7. Professional Service and Society Memberships

- Reviewer for NSF AMO theory program (2021), DOE Early Career program (2020 and 2021), DOE BES SBIR/STTR program (2018), NASA postdoctoral program
- Referee for *Nature Communications, Light: Science & Applications, Physical Review Letters, Physical Review A, Journal of Physics A, Journal of Physics B, New Journal of Physics, Optics Letters, Optics Express, Journal of Electron Spectroscopy and Related Phenomena, Physics Letters A, Physica Scripta, Optics Communications, Applied Optics, Photonics*
- Co-chair of the Theoretical Atomic, Molecular, and Optical Physics Community (TAMOC), from June 2020 – now; Website: https://sites.google.com/site/tamocphysics/home
- Chair of Focus Session J03: "*Imaging and novel spectroscopy techniques*", DAMOP meeting, Milwaukee, WI, May 27-31, 2019; Website: http://meetings.aps.org/Meeting/DAMOP19/Session/J03
- Organizing committee member, 2nd Intl. Conference on Attosecond Physics, Manhattan, Kansas, July 28 –Aug 1, 2009.
- Member of the American Physical Society (2002 – now)
- Member of the American Chemical Society (2018 - now)

8. Other activities

- Member of PhD Defense Committees for Mr. Jorgen J. Rorstad (Aarhus University, Feb. 2019); Mr. Adam Etches, Aarhus University (Sept. 2012); Ms. Misty Ostergaard (Department of Mathematics, Kansas State University, 2016).
- Served in various occasions as a member of departmental examination committee, and PhD exam committee.

9. Research Mentoring

At University of Connecticut

- Mr. Phi-Hung Tran, Graduate Research Assistant (09/2021- now)

At Missouri University of Science and Technology

- Dr. Van-Hung Hoang, Postdoc, Missouri S&T (02/015/2019- 06/27/2021)

- Mr. Phi-Hung Tran, Graduate Research Assistant, Missouri S&T (09/2019- 08/2021)
- Undergraduate research students: Zach Driemeyer, Joshua Maechler, Reagan Dugan, Aaron Silvus, Kenneth Distefano (FIRE student)
- High School student: Sudatta Hor (Rolla High School)

At Kansas State University

- Mr. Shan Xue, visiting graduate student from Lanzhou University, China (11/12/2016-2018).
- Mr. Van-Hung Hoang, graduate student, Ho Chi Minh City University of Pedagogy, Vietnam (PhD defense 12/2017).
- Dr. Ty Nguyen, visiting scientist from Ho Chi Minh City University of Pedagogy (03/14/2015-03/14/2017).
- Mr. Van-Hung Hoang, visiting graduate student from Ho Chi Minh City University of Pedagogy, Vietnam (03/01/2016-12/23/2016).
- Mr. Darren Woodson, NSF REU undergraduate student (summer 2016).