Curriculum Vitae

R. Jason Jones
John Paul Schaefer Endowed Chair in Optical Sciences
Professor of Optical Sciences
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Chronology of Education

University of New Mexico	Optical Science	Ph.D. 2001
Bethel College (St. Paul, MN)	Physics	B.S. 1994

Doctoral Dissertation

Title: "High Resolution Optical Frequency Metrology with Stabilized Femtosecond Lasers"
Major field: Atomic, Molecular, and Optical Physics

Chronology of Employment

- John Paul Schaefer Endowed Chair in Optical Sciences 7/22-present
- Professor, Wyant College of Optical Sciences, University of Arizona 8/20- present
- Associate Professor, College of Optical Sciences, University of Arizona 8/12-8/20
- Assistant Professor, College of Optical Sciences, University of Arizona 7/06 – 8/12
- Senior Research Associate, JILA, University of Colorado 11/04 - 07/06
- Research Associate, JILA, University of Colorado 11/03 – 11/04
- National Research Council Postdoctoral Research Associate, JILA 11/01 – 11/03

Honors and Awards

- Kavli Fellow, National Academy of Sciences ("Frontiers of Science" 2010)
- DARPA Young Faculty Award (2009)
- NSF CAREER Award (2007)
- Young Scientist Award, Conference on Precision Electromagnetics (2002)
- National Research Council Postdoctoral Associateship Award (2001-2003)

Patents

- *Bi-directional short pulse ring laser* (U.S. Patent #6,650,682).
- *Frequency Comb Cavity Enhanced Spectroscopy* (US Patent # 7,538,881)

Service and Outreach (since 2007)

- **University of Arizona Optics and Photonics Winter School and Workshop**. https://wp.optics.arizona.edu/winter-school-workshop/ 2016- present
  Founder, co-chair, and lecturer
  Dr. Jones was instrumental in the establishment of the annual Winter School and Workshop at the Wyant College of Optical Sciences as a nation-wide event to introduce undergraduates to research and career opportunities in the field of Optics and Photonics.

- Committee member, APS 2023 Arthur L. Schawlow Prize Selection Committee
- Committee member, APS 2022 Arthur L. Schawlow Prize Selection Committee

- Co-chair, APS Laser Science 2020
- Committee member, "Active Optical Sensing", OSA Conference on Lasers and Electro-Optics (CLEO) 2016, 2017,2018.
- Committee member, IEEE Frequency Control Symposium 2014, 2015,2016, 2017.
- Chair, APS New Laser Scientist Meeting 2016.
- Co-chair, APS New Laser Scientist Meeting 2014.
- Committee member, OSA Advanced Solid-State Lasers (ASSL) 2013, 2014.
- Committee member, OSA Advanced Solid-State Photonics (ASSP) 2012.
- Committee member, OSA High-Intensity Lasers and High-Field Phenomena (HILAS 2012).
- Subcommittee chair, "Optical Metrology", OSA Conference on Lasers and Electro-Optics (CLEO 2010, CLEO 2011).
- Committee member, "Optical Metrology", OSA Conference on Lasers and Electro-Optics (CLEO 2008, CLEO 2009)
- Committee member, "Time and Frequency Metrology" SPIE Optics and Photonics (2009, 2011).
- Committee member, "Optical Frequency Combs and Applications," EPS Conference on Lasers and Electro-Optics (CLEO/Europe 2007).
- Conference chair, "Time and Frequency Metrology", SPIE Optics and Photonics (2007).
- Reviewer for *Optica*, *Physical Review Letters, Nature Photonics, Optics Letters, Optics Express, New Journal of Physics, and Reports on Progress in Physics.*
- Proposal Reviewer for AFOSR, NSF, NASA, and European Science Foundation.
- Member of the American Physical Society and OPTICA.

Publications

Refereed Journal Articles (See Google Scholar page)

1. R. J. Jones, S. Gupta, R. K. Jain, and J. N. Walpole, "A near-diffraction-limited, high power, single longitudinal mode CW diode laser tunable from 960-980 nm," *Electron. Lett.* 31, 1668 (1995).

2. M. J. Bohn, R. J. Jones, and J.-C. Diels, "Mutual Kerr-lens mode-locking," *Opt. Comm.* 170, 85 (1999).

3. R. J. Jones, J.-C. Diels, J. Jasapara, and W. Rudolph, "Stabilization of the frequency, phase, and repetition rate of an ultra-short pulse train to a Fabry-Perot reference cavity," *Opt. Comm.* 174, 409 (2000).

4. R. J. Jones and J.-C. Diels, "Stabilization of femtosecond lasers for optical frequency metrology and direct optical to radio frequency synthesis," *Phys. Rev. Lett.* 86, 3288 (2001).

5. R. J. Jones, W.-Y. Cheng, K. W. Holman, L. Chen, J. L. Hall and J. Ye, "Absolute-frequency measurement of the iodine-based length standard at 514.67 nm," *Appl. Phys. B* **74**, 597 (2002).

6. R. J. Jones and J. Ye, "Femtosecond pulse amplification by coherent addition in a passive optical cavity," *Opt. Lett.,* **27**, 1848 (2002).

7. L. Arissian, R. J. Jones and J.-C. Diels, "Stabilization of mode-locked trains, and dark resonance of two-photon lambda-level structures," *J. of Mod. Opt*., **49**, 2517 (2002).

8. Jun Ye, J.-L. Peng, R. J. Jones, K. W. Holman, J. L. Hall, David. J. Jones, S. Diddams, , J. Kitching, S. Bize, J. C. Bergquist, and L. W. Hollberg, L. Robertsson, and L.-S. Ma, "Delivery of high stability optical and microwave frequency standards over an optical fiber network," *J. Opt. Soc. Am. B*, **20**, 1459 (2003).

9. K. W. Holman, R. J. Jones, A. Marian, S. T. Cundiff and J. Ye, "Intensity-related dynamics of femtosecond frequency combs," *Opt. Lett.* **28**, 851 (2003).

10. K. W. Holman, R. J. Jones, A. Marian, S. T. Cundiff and J. Ye, "Detailed studies and control of intensity-related dynamics of femtosecond frequency combs from mode-locked Ti:sapphire lasers." *IEEE J. Sel. Topics Quant. Electron.* **9**, 1018 (2003).

11. E. Potma, R. J. Jones, X. S. Xie and J. Ye, "Passive optical amplifier for picosecond pulses" *Opt. Lett*., **28**, 1835 (2003).

12. R. J. Jones, K. W. Holman, I. Thoman and J. Ye, "Precise stabilization of a femtosecond laser comb to a high finesse, passive optical cavity," *Phys. Rev. A* **69**, 051803R/1-4 (2004).

13. R. J. Jones and J. Ye, "High-repetition-rate coherent femtosecond pulse amplification with an external passive optical cavity," *Opt. Lett.* **29**, 2812 (2004).

14. I. Thomann, E. Gagnon, R.J. Jones, A.S. Sandhu, A. Lytle, R. Anderson, J. Ye, M. Murnane and H. Kapteyn, "Investigation of a grating-based stretcher/compressor for carrier-envelope phase stabilized femtosecond pulses," *Opt. Express*, **12**, 3493 (2004).

15. M. Thorpe, R. J. Jones, K. D. Moll, J. Ye and R. Lalezari, "Precise measurement of optical cavity dispersion and mirror coating properties via femtosecond combs," *Opt. Express* **13,** 882 (2005).

16. K. Moll, R. J. Jones, M. Thorpe and J. Ye, "Nonlinear dynamics inside femtosecond enhancement cavities," *Opt. Express* **13,** 1672 (2005).

17. R. J. Jones, K. Moll, M. Thorpe and J. Ye, "Phase-coherent frequency combs in the EUV via high-harmonic generation inside a femtosecond enhancement cavity," *Phys. Rev. Lett.* **94,** 193201/1-4 (2005).

18. R. J. Jones, T. Ido, T. Loftus, M. Boyd, A. Ludlow, K. Holman, M. Thorpe, K. Moll, and J. Ye, "Stabilized femtosecond lasers for precision frequency metrology and ultrafast science," *Laser Physics* **15**, No. 7, 1-4 (2005).

19. D. D. Hudson, K. W. Holman, R. J. Jones, D. J. Jones, S. T. Cundiff, and J. Ye, "Mode-locked fiber laser phase-stabilized with an intracavity electro-optic modulator," *Opt. Lett.* **30**, 2928 (2005).

20. M.J. Thorpe, K.D. Moll, R.J. Jones, B. Safdi, J. Ye," Broadband cavity ringdown spectroscopy for sensitive and rapid molecular detection," *Science* **311**, 1595 (2006).

21. J. Paul, J. Johnson, J. Lee, and R. J. Jones, "High average power fs frequency comb from an optically injection locked amplification cavity," *Opt. Lett.* **33**, 2482 (2008).

22. M. Mansuripur, A. R. Zakharian, A. Lesuffleur, S. H. Oh, R. J. Jones, N. C. Lindquist, H. Im, A. Kobyakov, and J. V. Moloney, "Plasmonic nano-structures for optical data storage," *Opt. Express* **17**, 14001 (2009).

23. K. Kieu, R.J. Jones, and N. Peyghambarian, "High power femtosecond source near 1 micron based on an all-fiber Er-doped mode-locked laser," *Opt. Express* **18**, 21350 (2010).

24. K. Kieu, R.J. Jones, and N. Peyghambarian, "Generation of few-cycle pulses from an amplified carbon nanotube mode-locked fiber laser system," *IEEE Photonics Tech. Letters* **22**, 1521 (2010).

25. D. R. Carlson, John Mongelli, E. M. Wright and R. J. Jones, "Numerical simulations of high intensity pulse trains and plasma dynamics in passive femtosecond enhancement cavities", Proc. SPIE 8132, 813205 (2011).

26. J. Paul, Y. Kaneda, T.-L. Wang, C. Lytle, J.V. Moloney, and R.J. Jones, "Precision spectroscopy of atomic mercury in the deep ultraviolet based on fourth-harmonic generation from an optically pumped external-cavity semiconductor laser," *Opt. Lett.* **36**, 61 (2011).

27. T.-H. Wu, K. Kieu, N. Peyghambarian, and R.J. Jones, "All fiber carbon nanotube based mode-locked laser system for generation of stable femtosecond frequency combs," *Opt. Express* **19**, 5313 (2011).

28. D.R. Carlson, J. Lee, J. Mongelli, E.M. Wright, and R.J. Jones, "Intracavity ionization and pulse formation in femtosecond enhancement cavities, " *Opt. Lett.* **36**, 2991 (2011).

29. Jane Lee, D.R. Carlson, and R.J. Jones, "Optimizing intracavity high harmonic generation for XUV fs frequency combs, " *Opt. Express* **19**, 23315 (2011).

30. M. Kolesik, E.M. Wright, J. Andreasen, J.M. Brown, D.R. Carlson, and R.J. Jones, "Space-time resolved simulation of femtosecond nonlinear light-matter interactions using a holistic quantum atomic model: Application to near-threshold harmonics," *Opt. Express* **20**, 16113 (2012).

31. J.T. Chia, S. E. Martin, D.R. Carlson, R.J. Jones, and E.M. Wright, "Operating characteristics of a femtosecond amplification cavity for infrared frequency combs," *Phys. Rev. A.,* **87** *023817 (2013*).

32. C. Baker, M. Scheller, S.W. Koch, A.R. Perez, W. Stolz, R.J. Jones, and J.V. Moloney, "In situ probing of mode-locked vertical-external-cavity-surface-emitting lasers," *Opt. Lett*. **40,** 5459 (2015).

33. Baker, C. W.; Scheller, M.; Laurain, A.; Ruiz-Perez, A.; Stolz, W.; Addamane, S.; Balakrishnan, G.; Koch, S. W.; Jones, R. J. & Moloney, J. V. "Multi-Angle VECSEL Cavities for Dispersion Control and Peak-Power Scaling". *IEEE Photonics Technology Letters*, **29**, 326 (2017)

34. Maik Scheller, Caleb Baker, Stephan Koch, Jerome Moloney, R. Jason Jones," High Power dual-wavelength VECSEL based on a multiple folded cavity," *IEEE Technology Letters*, **29**, 790 (2017).

35. Jenna Bergevin, Tsung-Han Wu, Jeremy Yeak, Brian E. Brumfield, S. Harilal, Mark C. Phillips, R. Jason Jones, "Dual-comb spectroscopy of laser-induced plasmas," *Nature Communications,* **9**:127 (2018).

36. Robert Rockmore, Alexandre Laurain, Jerome Moloney, R. Jason Jones, "Offset-free mid-infrared frequency comb based on a mode-locked semiconductor laser," *Optics Letters*, ***44****, 1797* (2019).

37. Yu Zhang, Caroline Lecaplain, Reagan R.D. Weeks, Jeremy Yeak, Sivanandan S. Harilal, Mark C. Philips, and R. Jason Jones, "Time-resolved dual-comb measurement of number density and temperature in a laser-induced plasma," *Optics Letters*, ***44****, 3458* (2019).

38. MC Phillips, BE Bernacki, SS Harilal, J Yeak, R.J. Jones, " Standoff chemical plume detection in turbulent atmospheric conditions with a swept-wavelength external cavity quantum cascade laser," Optics Express, **28**, 7408 (2020).

39. MC Phillips, SS Harilal, J Yeak, RJ Jones, S Wharton, BE Bernacki, " Standoff detection of chemical plumes from high explosive open detonations using swept-wavelength external cavity quantum cascade lasers," *Journal of Applied Physics* **128**, 163103 *(2020)*.

40. Robert Rockmore, R. Gibson, JV Moloney, RJ Jones, "A VECSEL-based virtually imaged phased array spectrometer for rapid gas phase detection in the mid-infrared," *Optics Letters* **45**, 5796 (2020).

41. Yu Zhang, Reagan R.D. Weeks, Caroline Lecaplain, J. Yeak S. Harilal, M. C. Philips, and R.J. Jones, "Burst-mode dual-comb spectroscopy," *Optics Letters* **46**, 860 (2021). doi.org/10.1364/OL.416668

42. S. Harilal, E. Kautz, M. Phillips, R.J. Jones, "Spectro-temporal comparisons of optical emission, absorption, and laser-induced fluorescence for characterizing ns and fs laser-produced plasmas" *Plasma Sources Science and Technology* 30, 045007 (2021).

43. Reagan R.D. Weeks, et al, "Measurement of neutral gadolinium oscillator strengths using dual-comb absorption spectroscopy in laser-produced plasmas, " *Spectrochimica Acta part B: Atomic Spectroscopy, **181**, 106199 (2021). DOI* 10.1016/j.sab.2021.106199

44. Daniel Upcraft, Andrew Schaffer, Connor Fredrick, Daniel Mohr, Nathan Parks, Andrew Thomas, Ella Sievert, Austin Riedemann, Chad W Hoyt, R Jason Jones, "Ultrafast optics with a mode-locked erbium fiber laser in the undergraduate laboratory," *American Journal of Physics* **89**, 1152 (2021). DOI 10.1119/10.0005890

45. Ryan Rhoades, Reagan R.D. Weeks, Seth Erickson, Caroline Lecaplain, S. Harilal, M. C. Philips, and R.J. Jones, " Dual-comb absorption spectroscopy of molecular CeO in a laser-produced plasma," *Optics Lett.* **47**, 2502 (2022).

46. Reagan R.D. Weeks, et al, "Multi-species temperature and number density analysis of a laser-produced plasma using dual-comb spectroscopy, " J. Appl. Phys. **131**, 223103 (2022); https://doi.org/10.1063/5.0094213

47. Elizabeth M. Gretarsson, Andri M. Gretarsson, Garrett D. Cole, Gregory M. Harry, Maya M. Kinley-Hanlon, R. Jason Jones, and Steven D. Penn, "Measured limits on amplitude dependence of mechanical loss in substrate-transferred GaAs/Al 0.92Ga 0.08As coatings," Phys. Rev. D **106**, 042001 (2022).

48. T. Bondaz, J. V. Moloney, J. G. McInerney, R.J. Jones, "Broadband 1.5 GHz VECSEL-based laser system for high-speed multi-contrast nonlinear imaging," Photonics Technology Letters (2023). 10.1109/LPT.2023.3261830.

49. Simon P. Tsaoussis, Sadhvikas Addamane, R. Jason Jones, and Jerome V. Moloney, "Dual-wavelength channel GHz repetition rate mode-locked VECSEL cavities sourced from a common gain medium," Opt. Lett. 49, 1688-1691 (2024).

50. John J. McCauley, Mark C. Phillips, Reagan R. D. Weeks, Yu Zhang, Sivanandan S. Harilal, and R. Jason Jones, "Dual-comb spectroscopy in the deep ultraviolet," *Optica* 11, 460-463 (2024).

51. Seth Erickson, Dylan P. Tooley, Kushan Weerashinghe, Xiushan Zhu, Arturo Chavez-Pirson, and R. Jason Jones, "Optical Atomic Clock Based on Direct Comb Spectroscopy, "*Optics Letters* **49**, 5340 (2024).

52. Ryland G. Wala, Mathew P. Polek, Sivanandan S. Harilal, R. Jason Jones, and Mark C. Phillips, "Characterization of electron density and ionization of a uranium laser produced plasma using laser absorption spectroscopy," *Spectrochimica Acta part B: Atomic Spectroscopy,* **227**, 107142 (2025).

53. Ryan T. Rhoades, John J. McCauley, Ryland G. Wala, Sivanandan S. Harilal, Mark C. Phillips, and R. Jason Jones, "Quantitative dual-comb spectroscopy of titanium monoxide in laser-produced plasmas," *Optics Express*, 33, 25080 (2025).

54. McCauley, John J., DylanP Tooley, and R. Jason Jones. "Vacuum Ultraviolet Dual-Comb Spectroscopy." *arXiv preprint arXiv:2602.13907* (2026).

Edited Books and Other Scholarly Publications

1. Masud Mansuripur, A. R. Zakharian, A. Lesuffleur, Sang-Hyun Oh, R. J. Jones, N. C. Lindquist, Hyungsoon Im, A. Kobyakov and J. V. Moloney, "Plasmonic nano-structures for optical data storage", Proc. SPIE 7505, 75050I (2009).

2. R.J. Jones, "Enhanced Quantum Light Generation," *Nature Photonics*, (News and Views) **4**, 138 (2010*). [Invited non-peer reviewed publication]*

Conference Presentations and Proceedings (invited and regular submissions **selected 2012-2025**)

For complete list of conference and journal publications, please see google scholar page: https://scholar.google.com/citations?hl=en&user=Jt_-K-0AAAAJ

1. David Carlson and R. Jason Jones, "Measuring optical nonlinearities with pump-probe intracavity phase spectroscopy," *Annual Meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP)*, Anaheim CA, June 4-8, 2012, Bulletin Am. Phys. Soc. 57 No. 5, N3.0005 (2012).
2. David Carlson and R. Jason Jones, "Pump-Probe Intracavity Phase Spectroscopy," Frontiers in Optics (FiO), OSA, Rochester NY. Paper FW1B.3 (2012).
3. Paul, Justin R.; Lytle, Christian R.; Kaneda, Yushi; et al., "Optically pump external-cavity semiconductor lasers for precision spectroscopy and laser cooling of atomic Hg," Conference: Conference on Vertical External Cavity Surface Emitting Lasers (VECSELs) III Location: San Francisco, CA Date: FEB 03-05, 2013.
4. D. R. Carlson, T. Wu, and R. J. Jones, "High power Yb frequency combs for dual-comb spectroscopy in the XUV," in *Advanced Solid-State Lasers Congress*, G. Huber and P. Moulton, eds., OSA Technical Digest (online) (Optical Society of America, 2013), paper AW2A.2.
5. T. Wu, D. Carlson, and R. J. Jones, "A high-power fiber laser system for dual-comb spectroscopy in the vacuum-ultraviolet," in *Frontiers in Optics 2013*, I. Kang, D. Reitze, N. Alic, and D. Hagan, eds., OSA Technical Digest (online) (Optical Society of America, 2013), paper FTu2A.4.
6. David Carlson, Tsung-Han Wu, and R. Jason Jones, "Intracavity high harmonic generation for XUV frequency combs," *Annual Meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP)*, Bulletin Am. Phys. Soc. 58 No. 6, U3.0001 (2013).
7. C. Lytle, J. Paul, T. Wu, and R. J. Jones, "Precision spectroscopy of the optical clock transition in laser cooled neutral Hg.," in *Frontiers in Optics 2014*, OSA Technical Digest (online) (Optical Society of America, 2014), paper JTu3A.14.
8. D. R. Carlson, T. Wu, and R. J. Jones, "Dual-comb intracavity high harmonic generation," in *Frontiers in Optics 2014*, OSA Technical Digest (online) (Optical Society of America, 2014), paper FTh1A.2.
9. G. Jacob, D. R. Carlson, T. Wu, R. J. Jones, and E. M. Wright, "Numerical simulations of enhancement cavity dynamics driven by femtosecond frequency

combs," in *Frontiers in Optics 2014*, OSA Technical Digest (online) (Optical Society of America, 2014), paper JTu3A.22.

10. (**Invited**) R. Jason Jones, "XUV frequency combs based on intracavity high harmonic generation," *Annual Meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP)*, Bulletin Am. Phys. Soc. 59, No. 8, H7.0001 (2014).
11. (**Invited**) R. Jason Jones, David R. Carlson, and Tsung-Han Wu, "An XUV dual-comb source for precision spectroscopy," *Frontiers in Optics 2015*, OSA Technical Digest (online) (Optical Society of America, 2015).
12. (**Invited**) R. Jason Jones, "Intracavity High Harmonic Generation: Frequency Combs from the IR to the XUV," Photonics North, 2015 (Ottawa, Canada).
13. D. R. Carlson, T. Wu, and R. J. Jones, "Dual-comb intracavity high harmonic generation for precision spectroscopy in the XUV," in *2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference*, (Optical Society of America, 2015), paper ED_2_2.
14. D. R. Carlson, T. Wu, and R. J. Jones, "Dual-comb femtosecond enhancement cavity for precise study of ionization dynamics and intracavity high harmonic generation," in *2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference*, (Optical Society of America, 2015), paper CF_9_5.
15. D. R. Carlson, T. Wu, and R. J. Jones, "Dual-comb femtosecond enhancement cavity for precision measurements of plasma dynamics and spectroscopy in the XUV," in *CLEO: 2015*, OSA Technical Digest (online) (Optical Society of America, 2015), paper SW3G.1.
16. J. Bergevin, T. Wu, J. Yeak, B. Brumfield, S. S. Harilal, M. C. Phillips, and R. J. Jones, "Dual-Comb Spectroscopy of Laser-Induced Plasmas," in Conference on Lasers and Electro-Optics, OSA Technical Digest (online) Optical Society of America, 2017), paper SW1L.2.
17. Laurain, A., Rockmore, R., Kilen, I., Baker, C., Scheller, M., Addamane, S., Moloney, J. V. (2018). VECSEL platform for single/dual frequency CW operation and ultrashort pulse generation. *2018 IEEE INTERNATIONAL SEMICONDUCTOR LASER CONFERENCE (ISLC)*, 101–102.
18. Rockmore, R., Laurain, A., Moloney, J. V., & Jones, R. J. (2018). VECSEL-Based Offset-Free Frequency Comb in the MIR. *2018 IEEE INTERNATIONAL SEMICONDUCTOR LASER CONFERENCE (ISLC)*, 203–204.
19. Rockmore, R., Baker, C. W., Laurain, A., Wu, T.-H., Jones, R. J., & Moloney, J. V. (2018). Supercontinuum generation and beatnote detection using ultrafast VECSEL seed oscillators. *VERTICAL EXTERNAL CAVITY SURFACE EMITTING LASERS (VECSELS) VIII*, *10515*.
20. (**Invited**) Jones, R. J. (2018, October). *Time-resolved dual-comb spectroscopy of laser induced plasmas*. Sci X. Atlanta GA
21. (**Invited**) Jones, R. J. (2018, Autumn). *Time-resolved dual-comb spectroscopy of laser induced plasmas*. OSA Light, Energy and the Environment. Singapore: OSA
22. Jones, R. J., & Lecaplain, C. (2018, Autumn). *Dual comb laser system for time-resolved spectroscopy of laser induced plasmas from the UV to VUV*. OSA Advanced Solid-State Lasers. Boston: OSA
23. C. Lecaplain, Y. Zhang, R. R. D. Weeks, J. Yeak, S. S. Harilal, M. C. Phillips, and R. J. Jones, "Time-Resolved Dual Frequency Comb Spectroscopy for Broadband Multi-Species Detection in Laser-Induced Plasmas," in *Conference on Lasers and Electro-Optics*, OSA Technical Digest (Optical Society of America, 2019), paper STh1G.5.

24. Weeks, Reagan RD, et al. "Time-Resolved Dual Frequency Comb Phase Spectroscopy of Laser-Induced Plasmas." *CLEO: Science and Innovations*. Optica Publishing Group, 2019.
25. Zhang, Yu, et al. "Characterization of a Laser-Induced Plasma Using Time-Resolved Dual-Frequency-Comb Spectroscopy." *CLEO: Science and Innovations*. Optica Publishing Group, 2019.
26. M. C. Phillips, B. E. Bernacki, S. S. Harilal, J. Yeak, and R. J. Jones, "Standoff 250 m Open-path Detection of Chemical Plumes Using a Broadband Swept-ECQCL," in *Conference on Lasers and Electro-Optics*, OSA Technical Digest (Optical Society of America, 2019), paper SM1N.3.
27. R. T. Rhoades, C. Lecaplain, P. G. Schunemann, and R. J. Jones, "Dual-comb laser system for time-resolved studies of fireballs in the MIR," in *Conference on Lasers and Electro-Optics*, OSA Technical Digest (Optical Society of America, 2019), paper SW4L.1.
28. Zhang, Y., Weeks, R. R., Lecaplain, C., Yeak, J., Harilal, S. S., Phillips, M. C., & Jones, R. J. (2020, May). Pulse burst mode dual-comb spectroscopy for time-resolved measurements of laser-induced plasmas. In *CLEO: Science and Innovations* (pp. STh3F-6). Optica Publishing Group.
29. Weeks, Reagan RD, et al. "Pulse-Burst Generation for Single-Shot Time-Resolved Dual-Comb Spectroscopy of Laser-Induced Plasmas." *Laser Applications to Chemical, Security and Environmental Analysis*. Optica Publishing Group, 2020
30. Phillips, Mark C., et al. "High-Speed Standoff Chemical Plume Detection Using Swept-Wavelength External Cavity Quantum Cascade Lasers." *Laser Applications to Chemical, Security and Environmental Analysis*. Optica Publishing Group, 2020.
31. Rhoades, R. T., Lecaplain, C., Phillips, M., Schunemann, P. G., & Jones, R. J. (2020, June). LWIR Dual-Comb System for Time-Resolved Spectral Analysis. In *Laser Applications to Chemical, Security and Environmental Analysis* (pp. LW3E-5). Optica Publishing Group.
32. Rockmore, R., Gibson, R., Jones, R.J., Moloney, J.V. "Comb tooth resolved MIR spectroscopy using a VECSEL frequency comb and a virtually-imaged phased array spectrometer" Proceedings of SPIE - The International Society for Optical Engineering 11263,112630L, 2020.
33. (**Invited**) R. J. Jones, "Burst-mode dual-comb spectroscopy for time-resolved studies of laser induced plasma's" Advanced Lasers and Photon Sources 2020, Yokohama, Japan (online presentation).

34. RRD Weeks, Y Zhang, C Lecaplain, J Yeak, SS Harilal, MC Phillips, R.J. Jones, "Time-Resolved Multispecies Analysis of a Laser-Induced Plasma using Dual-Comb Spectroscopy," 2021 Conference on Lasers and Electro-Optics (CLEO).
35. Harilal, S. S., Kautz, E. J., Jones, R. J., & Phillips, M. C. (2021, May). Simultaneous measurement of optical spectroscopic signatures from ultrafast laser-produced plasmas. In *CLEO: Science and Innovations* (pp. SM1E-4). Optica Publishing Group.
36. RT Rhoades, C Lecaplain, MC Phillips, RJ Jones, LWIR Dual-Comb Spectroscopy Using Time-Domain Etalon Calibration, CLEO: Science and Innovations, (2021) SM1G. 8
37. Weeks, R. R., Rhoades, R. T., Erickson, S. E., Harilal, S. S., Phillips, M. C., & Jones, R. J. (2022, May). Multi-Wavelength Dual-Comb Spectroscopy of Laser-Produced Plasmas in the Near-IR. In *CLEO: Science and Innovations* (pp. SM3F-4). Optica Publishing Group.

38. Rhoades, R. T., Weeks, R. R., Erickson, S. E., Harilal, S. S., Phillips, M. C., & Jones, R. J. (2022, May). Dual-Comb Absorption Spectroscopy of CeO in a Laser-Produced Plasma. In *CLEO: Science and Innovations* (pp. SF2F-1). Optica Publishing Group.
39. Zhang, Y., Weeks, R., Rhoades, R., Erickson, S., Phillips, M., Harilal, S., & Jones, R. J. (2022). Dual-comb Spectroscopy of Laser-Induced Plasmas. In *APS Division of Atomic, Molecular and Optical Physics Meeting Abstracts* (Vol. 2022, pp. F01-128).
40. Erickson, S., Jones, R. J., & Tooley, D. (2022). A Two-Photon Optical Atomic Clock based on Direct Comb Spectroscopy. In *APS Division of Atomic, Molecular and Optical Physics Meeting Abstracts* (Vol. 2022, pp. N01-079).
41. **(Invited)** R. J. Jones, "Dual-Comb Spectroscopy of Laser-Produced Plasmas from the UV to the MIR**,"** Laser Congress 2022, LsTh3C.1
42. Kim, Daewook, Brandon Chalifoux, Lars R. Furenlid, Poul Jessen, Jason Jones, John Koshel, Channel Lemon, Masud Mansuripur, and Euan McLeod. "Optical Sciences Winter School for enabling future students in optics society." In *Education and Training in Optics and Photonics*, p. 127231D. Optica Publishing Group, 2023.
43. Tsaoussis, S. P., Sadhvikas Addamane, R. Jason Jones, and J. V. Moloney. "Coupled mode-locked VECSEL cavities with a shared gain medium." In *Vertical External Cavity Surface Emitting Lasers (VECSELs) XII*, vol. 12404, pp. 6-10. SPIE, 2023.
44. Gibson, Ricky, et al. "Hybrid SESAMs for high-repetition rate mode-locked VECSELs." *Vertical External Cavity Surface Emitting Lasers (VECSELs) XII*. Vol. 12404. SPIE, 2023.
45. Tsaoussis, Simon P., Ricky Gibson, Joshua Rollag, Catherine Nguyen, David Follman, Garrett Cole, Sadhvikas Addamane, Jerome V. Moloney, and R. Jason Jones. "Hybrid SESAM Mode-Locked VECSEL." In *CLEO: Science and Innovations*, pp. STh4Q-6. Optica Publishing Group, 2023.
46. Zhang, Yu, John J. McCauley, and R. Jason Jones. "Ultraviolet dual-comb spectroscopy utilizing intra-cavity high harmonic generation." *CLEO: Science and Innovations*. Optica Publishing Group, 2023.
47. McCauley, John, et al. "Dual-Comb Spectroscopy from the UV to VUV." 2023 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC). IEEE, 2023.
48. **(Invited)** R. Jason Jones, et al. ,"Dual-comb spectroscopy from the IR to the VUV" Advanced Lasers and Photon Sources 2024, Yokohama, Japan.
49. **(Invited)** R. Jason Jones, et al. ," Dual-Comb Spectroscopy in the Deep Ultraviolet for Laser Plasma Characterization" in *Frontiers in Optics 2024*, (Optica 2024).
50. Tooley, D. P., Erickson, S. E., Weerasinghe, K., Zhu, X., Chavez-Pirson, A., & Jones, R. J. (2024, May). A Two-Photon Rb Clock Based on Direct Comb Excitation. In *2024 Conference on Lasers and Electro-Optics (CLEO)* (pp. 1-2).
51. Jarymowycz, A., Dannar, H., Hofer, C., McCauley, J. J., Tooley, D. P., Bowman, E., ... & Jones, R. J. (2025, May). Combing for the Rare-Earths. In *CLEO: Science and Innovations* (p. SS119_2). Optica Publishing Group.
52. McCauley, J. J., Tooley, D. P., & Jones, R. J. (2025, May). Dual-Comb Spectroscopy at 210 nm via Intracavity High-Harmonic Generation. In *CLEO: Science and Innovations* (p. PD101_5). Optica Publishing Group.
53. Photonics West 2025 invited talk on UV DCS
54. **(Invited)** Photonics North 2025 invited talk on UV DCS
55. Hofer C, Jarymowycz A, Dannar H, McCauley JJ, Bowman E, Tooley DP, Wong A, Mills AK, Phillips MC, Jones RJ, Jones DJ. Dual-Comb-Spectroscopy for Rare-

Earth-Element Detection. InThe European Conference on Lasers and Electro-Optics 2025 Jun 23 (p. ch_6_4). Optica Publishing Group.

56. R. J. Jones, "Dual-Comb Spectroscopy in the Deep Ultraviolet for Laser Plasma Characterization," in *Frontiers in Optics + Laser Science 2024 (FiO, LS)*, Technical Digest Series (Optica Publishing Group, 2024), paper FTu6E.2.