

## **Todd G. Ulmer Publications and Conference Presentations**

**T. G. Ulmer**, V. Loriaux, R. J. Murphy, P. A. Schulz, and J. M. Roth, "Optical standards for free-space lasercom systems," to appear in the *MIT Lincoln Laboratory Journal*, Fall 2007.

**T. G. Ulmer**, A. C. Raudenbush, and V. Loriaux, "Stable, tunable calibration source for large-beam optical systems," *Appl. Opt.*, vol. 46, no. 5, pp. 669-675, Feb. 10, 2007.

M. M. Lee, J. M. Roth, **T. G. Ulmer**, and C. V. Cryan, "The fiber fuse phenomenon in polarization-maintaining fibers at 1.55  $\mu\text{m}$ ," 2006 Conference on Lasers and Electro-Optics, Long Beach, CA, May 21-26, 2006, paper JWB66.

**T. G. Ulmer**, "Lasercom Terminal Design," presented at the Lincoln Laboratory Communications and Information Technology Workshop, Lexington, MA, March 8-9, 2005.

J. M. Roth, **T. G. Ulmer**, N. W. Spellmeyer, S. Constantine, and M. E. Grein, "Wavelength-tunable 40-GHz picosecond harmonically mode-locked fiber laser source," *IEEE Photon. Technol. Lett.*, vol. 16, no. 9, pp. 2009-2011, Sept. 2004.

**T. G. Ulmer**, "Distortion in angle-modulated links induced by ripple in fiber-Bragg-grating reflectance and delay characteristics," *J. Lightwave Technol.*, vol. 21, no. 12, pp. 3226-3236, Dec. 2003.

J. M. Roth, **T. G. Ulmer**, N. W. Spellmeyer, S. Constantine, and T. G. B. Mason, "40-GHz, picosecond modelocked fiber laser using an integrated semiconductor optical amplifier and electroabsorption modulator," 2003 Conference on Lasers and Electro-Optics, Baltimore, MD, June 1-6, 2003, paper CDW6.

**T. G. Ulmer**, M. Hanna, B. R. Washburn, S. E. Ralph, and A. J. SpringThorpe, "Microcavity-enhanced surface-emitted second-harmonic generation for ultrafast all-optical signal processing," *IEEE J. Quantum Electron.*, vol. 38, no. 1, pp. 19-30, Jan. 2002.

**T. G. Ulmer**, M. Hanna, B. R. Washburn, C. M. Verber, S. E. Ralph, and A. J. SpringThorpe, "Microcavity-enhanced surface-emitted second-harmonic generation from 200-fs pulses at 1.5- $\mu\text{m}$ ," *Appl. Phys. Lett.*, vol. 78, no. 22, pp. 3406-3408, May 28, 2001.

**T. G. Ulmer**, B. R. Washburn, C. M. Verber, S. E. Ralph, and A. J. SpringThorpe, "Resonant-cavity-enhanced surface-emitted second-harmonic generation optimized for short pulses," 2001 Ultrafast Electronics and Optoelectronics Conference, Lake Tahoe, Nevada, Jan. 10-12, 2001, OSA TOPS vol. 49, pp. 49-53.

**T. G. Ulmer**, M. C. Gross, J. T. Simmons, P. W. Juodawlkis, B. R. Washburn, W. S. Astar, A. J. SpringThorpe, R. P. Kenan, C. M. Verber, and S. E. Ralph, "160-Gb/s Optically time-division multiplexed link with all-optical demultiplexing," *J. Lightwave Technol.*, vol. 18, no. 12, pp. 1964-1977, Dec. 2000.

**T. G. Ulmer**, B. R. Washburn, C. M. Verber, and S. E. Ralph, "Microcavity-enhanced surface-emitted second-harmonic generation for signal processing in the ps and fs regimes," Ultrafast Phenomena Topical Meeting, Charleston, SC, July 9-13, 2000.

**T. G. Ulmer**, M. C. Gross, K. M. Patel, R. P. Kenan, S. E. Ralph, C. M. Verber, and A. J. SpringThorpe, "Optical time-division demultiplexing with resonant-cavity-enhanced surface-emitted second-harmonic generation," 2000 Conference on Lasers and Electro-Optics, San Francisco, CA, May 7-12, 2000, paper CTuD5, pp. 195-196.

**T. G. Ulmer**, B. R. Washburn, R. P. Kenan, C. M. Verber, S. E. Ralph, and A. J. SpringThorpe, "Resonant-cavity-enhanced surface-emitted second-harmonic generation in the sub-ps regime," 2000 Conference on Lasers and Electro-Optics, San Francisco, CA, May 7-12, 2000, paper CWP7, pp. 362-363.

**T. G. Ulmer**, M. C. Gross, K. M. Patel, B. R. Washburn, W. S. Astar, S. E. Ralph, R. P. Kenan, C. M. Verber, and A. J. SpringThorpe, "Optical time-division demultiplexing with resonant-cavity-enhanced surface-emitted second-harmonic generation," 1999 Annual Meeting of the Optical Society of America, Santa Clara, CA, Sept. 26-30, 1999.

J. T. Simmons, B. R. Washburn, **T. G. Ulmer**, W. S. Astar, S. E. Ralph, R. P. Kenan, and C. M. Verber, "Femtosecond pulse performance of an integrated optical tapped delay line," 1999 Annual Meeting of the Optical Society of America, Santa Clara, CA, Sept. 26-30, 1999.

**T. G. Ulmer**, M. C. Gross, W. S. Astar, P. W. Juodawlkis, B. R. Washburn, A. J. SpringThorpe, R. P. Kenan, C. M. Verber, and S. E. Ralph, "Ultrafast optical devices for high-speed optical data links," Materials and Devices for Photonic Circuits, SPIE 44th annual meeting, Denver, CO, July 21-22, 1999, SPIE vol. 3803, pp. 51-59.

**T. G. Ulmer**, R.K. Tan, Z. Zhou, S. E. Ralph, R. P. Kenan, C. M. Verber, and A. J. SpringThorpe, "Two-photon absorption-induced self-phase modulation in GaAs-AlGaAs waveguides for surface-emitted second-harmonic generation," *Opt. Lett.*, vol. 24, no. 11, June 1, 1999.

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