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Education

Undergraduate: Nizhny Novgorod State University, Russia Physics, Mathematics B.S. 1993
Graduate: University of Florida, Gainesville Physics Ph.D. 2000

Appointments

Postdoctoral Fellow, LANL, Apr.2001—Apr.2004
LTSM, TSM CINT, LANL Apr.2004-present

Publications

1. S. H. Nam, A. J. Taylor, A. Efimov, "Subwavelength hybrid terahertz waveguides," *Optics Express*, 17, 22890-22897 (2009).
2. Helmut C. Y. Yu, Alexander Argyros, Sergio G. Leon-Saval, Alex Fuerbach, Anatoly Efimov, and Geoff W. Barton, "Emission properties of quantum dots in polymer optical fibres," *Optics Express* 17, 21344-21349 (2009).
3. I. Grigorenko, A. Efimov, "Control of the temporal profile of the local electromagnetic field near metallic nanostructures," *New Journal of Physics* 11, 105042 (2009) (INVITED).
4. Z. Chen, A. J. Taylor, A. Efimov, "Coherent mid-infrared broadband continuum generation in non-uniform ZBLAN fiber taper" *Opt. Express* 17, 5852–5860 (2009).
5. A. Efimov, "Fundamental nonlinear-optical interactions in photonic fibers: time-spectral visualization," *Laser Physics*, 18, 667-681 (2008). (INVITED, Reviews).
6. A. Efimov and A. J. Taylor, "Supercontinuum generation and soliton timing jitter in SF6 soft glass photonic crystal fibers," *Opt. Express* 16, 5942 (2008).
7. F. G. Omenetto, N. A. Wolchover, M. R. Wehner, M. Ross, A. Efimov, A. J. Taylor, V. V. R. K. Kumar, A. K. George, J. C. Knight, N. Y. Joly, P. St. J. Russell, "Spectrally smooth supercontinuum from 350 nm to 3 μm in sub-centimeter lengths of soft-glass photonic crystal fibers," *Opt. Express* 14, 4928 (2006).
8. F. G. Omenetto, N. A. Wolchover, M. R. Wehner, M. Ross, A. Efimov, A. J. Taylor, V. V. R. K. Kumar, A. K. George, J. C. Knight, N. Y. Joly, P. St. J. Russell, "Supercontinuum generation in sub-centimeter lengths of high-nonlinearity photonic crystal fiber," *Optics & Photonics News*, 17, 35 (2006) Optics in 2006 issue.
9. A. Efimov, A. J. Taylor, A. V. Yulin, D. V. Skryabin, J. C. Knight, "Phase-sensitive scattering of a continuous wave on a soliton," *Opt. Lett.* 31, 1624 (2006).
10. A. Efimov, A. V. Yulin, D. V. Skryabin, J. C. Knight, N. Joly, F. G. Omenetto, A. J. Taylor, P. St. J. Russell, "Interaction of an optical soliton with a dispersive wave," *Phys. Rev. Lett.* 95, 213902 (2005).

Collaborators: LANL: A. J. Taylor, D. Yarotski, D. Moore, A. Peryatinski, S. McGrain, Q. McCullough, G. Berman, B. Chernobrod, M. Greenfield, J. Martinez: University of Arizona: I. Gabitov; University of Bath: UK: J. Knight, D. Skryabin; Institute of Applied Physics, Russia: A. Sergeev, A. Stepanov; University of Sydney: A. Argyros, H. Yu; Asahi Glass Company, Japan: N. Sugimoto, Southwest Sciences, New Mexico: D. Kane.

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