



Mark F. Arend

Assistant Professor

Department of Electrical Engineering

The City College of NY

138th Street & Convent Ave

New York NY 10031

Phone: (212) 650-7898 Fax: (212) 650-8249

Email: marend@ccny.cuny.edu

Education

Columbia University	Ph.D., Applied Physics	1991
Columbia University	M.Phil, Applied Physics	1988
Columbia University	M.S., Applied Physics	1986
University of Washington	B.S., Physics	1982

Professional Experience

Asst. Professor of Electrical Engineering	The City College of NY	2002 - Present
Visiting Assistant Professor of EE	The City College of NY	2002 - Present
Senior Member of Technical Staff	TyCom Laboratories, N.J	1999 - 2002
Research Scientist	Princeton University	1997 - 1999
Postdoctoral Researcher Scientist	Naval Research Laboratory	1993 - 1997

Research Interests

Optical Communications, Fiber Optics, High Speed Electro-Optics, Nonlinear Optics, Quantum Electronics, Optical Coherent Transients

Selected Publications

- *Optical test equipment for performance evaluation of installed DWDM systems*, B. Bakhshi, W. W. Patterson, J. Leanza, D. Duff, E. A. Golovchenko, M. Nissov, D. I. Kovsh, M. Vaa, D. Sliwinski, R. L. Maybach, K. Razavi, M. F. Arend, T. Becker, S. Jimenez, in OSA Trends in Optics and Photonics (TOPS) Vol. 70, Optical Fiber Communications Conference, Technical Digest, Postconference Edition (Optical Society of America, Washington DC, 2002), pp. TuY3 B.
- *Advantages of orthogonal polarization launch in a 6,500 km straight-line DWDM transmission experiment*, Bakhshi, D. Duff, L. Liu, E. A. Golovchenko, A. N. Pilipetskii, K. Razavi, D. Sliwinski, A Lucero, M. Arend, M. Vaa, W.W. Patterson, in OSA Trends in Optics and Photonics (TOPS) Vol. 70, Optical Fiber Communications Conference, Technical Digest, Postconference Edition (Optical Society of America, Washington DC, 2002), pp. WP7
- *Impact of spectral hole burning on long haul WDM transmission system performance*, D. G. Duff, F. Heismann, N. Litchinitser, M. F. Arend, E. Golovchenko, M. Nissov, in Optical Amplifiers and Their Application, OSA Technical Digest (Optical Society of America, Washington DC, 2001), pp. OMD2
- *1 Tbit/s (101 x 10 Gbit/s) transmission over transpacific distance using 28 nm C-band EDFAs*, B. Bakhshi, M.F. Arend, M. Vaa, E.A. Golovchenko, D. Duff, H. Li, S. Jiang, W.W. Patterson, R.L. Maybach, and D. Kovsh, OFC Post Deadline Paper in Trends in Optics and Photonics (TOPS) Vol. 54, Optical Fiber Communications Conference, Technical Digest, Postconference Edition (Optical Society of America, Washington DC, 2001), pp. PD21.

Selected Grants

- Experimental Studies of Spectral hole burning in Erbium Doped Fiber Amplifiers, PSC-CUNY, \$5k July 1, 2003 to Dec. 2004
- High speed and high frequency electronic and optical characterization of novel surface plasmon based MSM photo detectors, CUNY Collaborative Equipment Grant, \$63k for one year from Feb. 13, 2004
- Design and characterization of flat-gain combined Raman and parametric amplifiers, DARPA and NSF Photonics Technology Access Program, \$13,000
- Materials and Devices Research and Educational Infrastructure Enhancement, DOD Instrumentation Grant, \$197,134 for 1 year

Patents

- High aspect ratio metal contact device for metal-semiconductor-metal photo detector sensitivity enhancement, David Crouse, Mark Arend, preliminary patent #1038-12P