

Neal Rider Erickson

Research Professor (semi-retired)
Dept. of Astronomy, Lederle 619
710 N. Pleasant St.
University of Massachusetts
Amherst, MA 01003
413-545-1873
nre@umass.edu

(a) Professional preparation:

California Institute of Technology, Pasadena, CA, Physics, B.S., 1970.
Univ. of California, Berkeley, CA, Physics, Ph.D., 1979
University of Massachusetts, Amherst, MA, Post Doc, Astronomical Instrumentation, 1979-1993

(b) Appointments:

1993-present University of Massachusetts, Amherst, MA, Full Research Professor
1982-2000 Millitech Corp, S. Deerfield, MA, Sr. Scientist
1994 National Radio Astronomy Observatory, Charlottesville, VA (2 month sabbatical)
1979-93 University of Massachusetts, Amherst, MA, Post Doctoral Research Associate, later Sr. Post Doctoral Associate
1972-79 University of California, Berkeley, CA, Research Assistant
1970-72 University of California, Berkeley, CA, Teaching Assistant

(c) (i) Most closely related products

J. C. Bardin, M. N. Yogeesh, N R. Erickson, and G. Narayanan, "A 70-95 GHz SiGe Downconverter IC for Large-N Focal Plane Arrays," *Proceedings 2014 IEEE IMS*, pp. 1-4.

N. R. Erickson, "High Performance Dual Directional Couplers for Near-mm Wavelengths," *IEEE Microwave and Wireless Comp. Lett.*, pp. 205-207, May 2001.

N.R. Erickson, R.M. Grosslein, R.B. Erickson and S. Weinreb, "A Cryogenic Focal Plane Array for 85-115 GHz Using MMIC Preamplifiers," *IEEE Trans. Microwave Theory and Tech.*, pp.2212-2219, Dec 99.

S. Weinreb , R. Lai, N. Erickson, T. Gaier, and J. Wielgus, "W-Band Inp Wideband MMIC LNA With 30K Noise Temperature," *Proceedings of 1999 IEEE MTT-S International Microwave Symposium*, paper MO2B-1 (4 pages), Anaheim, CA, June 99.

N. Erickson, G. Narayanan, R. Goeller and R. Grosslein, "An Ultra-Wideband Receiver and Spectrometer for 74-110 GHz," *Astronomical Society of the Pacific Conference Series*, vol 375, From Z-Machines to ALMA, pp. 71-81, 2007.

(ii) other products:

Andriy A. Danylov, Alexander R. Light, Jerry Waldman, Neal Erickson, and Xifeng Qian, "Widely tunable quantum cascade laser-based terahertz source," *Applied Optics*, volume 53, issue 20, pp. 4475-4480 (2014).

Neal Erickson, "AM Noise in Drivers for Frequency Multiplied Local Oscillators," *Fifteenth International Symposium on Space Terahertz Technology*, pg 135, 2004 Northampton, MA.

N.R. Erickson and T. Goyette, "TeraHertz Schottky-Diode Balanced Mixers," *Twenty-first International Symposium on Space Terahertz Technology*, Mar 2010.

N.R. Erickson and R.M. Grosslein, "A Low Loss 74-110 GHz Faraday Polarization Rotator," *IEEE Trans Microwave Theory Tech*, vol 55, pp. 2495-2501, 2007.

A. Maestrini, J. Ward, J. Gill, H. Javadi, E. Schlecht, G. Chattopadhyay, F. Maiwald, N.R. Erickson, and I. Mehdi, "A 1.7 to 1.9 THz Local Oscillator Source," *IEEE Microwave and Wireless Comp. Lett.*, vol 14, pp. 253-255, June, 2004.

(d) Synergistic Activities

Member of the IEEE

Active reviewer for the IEEE Transactions on Terahertz Science and Technology

Collaborators (12)

Michael Coulomb, Univ. of Mass, Lowell, MA
Andriy Danylov, Univ. of Mass, Lowell, MA
Junming Diao, Brigham Young Univ., Provo, UT
Brian Jeffs, Brigham Young Univ., Provo, UT
Anthony Kerr, NRAO, Charlottesville, VA
Arthur Lichtenberger, Univ. of VA, Charlottesville, VA
Alexander Light, Univ. of Mass, Lowell
Richard Prestage, NRAO, Green Bank, WV
Xifeng Qian, Univ. Of Mass, Lowell
Jerry Waldman, Univ. of Mass, Lowell, MA
Karl Warnick, Brigham Young Univ., Provo, UT
M. N. Yogeesh, Univ. of Mass, Amherst, MA

Graduate Advisor (1)

Raymond Chiao, Univ. of CA, Merced (emeritus)

Postdoctoral Sponsor (1)

G.R. Huguenin (deceased)

PhD Students Advised (3)

Robert Goeller, GE
Ajay Prabhu, QUEST Global
Jan Tauber, ESA