

DR. DAVID IZRAELEVITZ

Contact Information: MS F-603
Los Alamos National Laboratory
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EMPLOYMENT:

9/05 – present **Los Alamos National Laboratory.** Los Alamos, NM.
Staff Member

Systems dynamics models of critical metropolitan infrastructure to support homeland security decision making

Multisource fusion algorithms for military intelligence applications

2/99 – 9/05 **SRI International.** Los Alamos, NM.
Senior Research Engineer

Terrain visibility algorithms

Minimal path algorithms under multicriteria cost functions

Bounded cost path algorithms

1/95 – 11/98 **Oasis Research Center, Inc.** Los Alamos, NM.
Senior Staff Scientist

Statistical estimation of military force and echelon information from target detectors

Force structure analysis algorithms from radar imagery

6/86 – 12/94 **The Analytic Sciences Corporation (TASC).** Reading, MA.
Image Analysis Section Manager and Division (Senior) Staff Analyst

Development of image and signal processing algorithms for satellite, non-destructive evaluation, and biomedical applications

CONSULTING RELATIONSHIPS:

MPSI Systems, Inc., Technical Advisory Board

UNM College of Pharmacy

MIT Lincoln Laboratories

Teradyne, Inc.

RCA Laboratories, David Sarnoff Research Center

EDUCATION:

1986 – Sc. D., Electrical Engineering and Computer Science, MIT

1983 – S.M., Electrical Engineering and Computer Science, MIT

1981 – B.S. Magna Cum Laude, Systems Engineering, RPI

PROFESSIONAL AFFILIATIONS AND HONORS:

Senior Member of the IEEE, member of SIAM

Chair of the Northern New Mexico Chapter of the IEEE Computer Society from 1996 to 2001.

DR. DAVID IZRAELEVITZ

2001 Director's Award Army Corps of Engineers

2003 Army Corps of Engineers Engineering Research and Development Center Award

1981 Ricketts Commencement Prize

PATENTS AND SELECTED PUBLICATIONS:

D. Izraelevitz and K.S. Cochand, Automated System and Method for Estimating Antibiotic Effectiveness from Drug Diffusion Tests (Apparatus and Method), U.S. Patent Nos. 5,629,169 and 5,618,729.

D. Izraelevitz, A Fast Algorithm for Approximate Viewshed Computation, Photogrammetric Engineering and Remote Sensing, Vol. 69, No. 7, pp. 767-774, July 2003.

D. Izraelevitz, Model-based Multispectral Sharpening, Proceedings SPIE Algorithms for Multispectral and Hyperspectral Imaging, Vol. 2231, pp. 60-71, July 1994.

D. Izraelevitz and J.A. Cochand, Multisource Fusion for Target Detection, Proceedings SPIE Technical Symposium on Optical Engineering and Photonics in Aerospace Sensing, pp. 58-67, April 1990.

D. Izraelevitz, A Fast Algorithm for Voronoi Diagram Calculation Based on Distance Doubling, Second Symposium on the Frontiers of Massively Parallel Computation, IEEE Computer Society, October 1988.

D. Izraelevitz and J.S. Lim, A New Direct Algorithm for Image Reconstruction from Fourier Transform Magnitude, IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-35, No. 4, April 1987.

A. Zakhor and D. Izraelevitz, A Note on the Sampling of Zero Crossings of Two-Dimensional Signals, Proceedings of the IEEE, Correspondence, Vol. 74, No. 9, September 1986.

D. Izraelevitz, Some Results on the Time-Frequency Sampling of the Short-Time Fourier Transform Magnitude, IEEE Transactions on Acoustics, Speech, and Signal Processing, Correspondence, vol. ASSP-33, No. 6, December 1985.

D. Izraelevitz and J.L. Koslov, Code Utilization for Component-Coded Digital Video, SMPTE Television Conference, Nashville, February 1982.