

Recent Reports

1. "Variable Resolution Imagery for Flight Simulators", USAF Technical Report, AL/HR-TR-1993-0180, Jan. 1994 (with G. A. Geri and C. A. Vrana).
2. "Visual Evaluation of Computer-Generated Images", USAF Technical Report, AL/HR-TR-1993-0189, Jan. 1994 (with G. A. Geri and D. Lyon).
3. "Processing of Single-Trial Evoked Potentials: A Non-Parametric Approach", EE Pub. No. 1180 Nov. 1998, Technion (with P. Kisilev and H. Porat).
4. "Images as Manifolds Embedded in a Spatial-Feature Non-Euclidean Space", CCIT Report #260, Nov. 1998, Technion (with N. Sochen).
5. "Total Variation and Wavelet Regularization Methods in Emission Tomography", CCIT Report #336, Jan. 2001, Technion (with P. Kisilev and M. Zibulevsky).
6. "Utilizing Wavelet Transform for ML Reconstruction in Positron Emission Tomography", CCIT Report #337, Jan. 2001, Technion (with P. Kisilev and M. Jacobson).
7. "A Forward-and-Backward Diffusion Process for Adaptive Image Enhancement and Denoising", CCIT Report #343, May 2001, Technion (with G. Gilboa, and N. Sochen).
8. "Image Sharpening by Flows Based on Triple Well Potentials", CCIT Report #403, Nov. 2002, Technion (with G. Gilboa, and N. Sochen).
9. "Image Enhancement and Denoising by Complex Diffusion Processes", CCIT Report #404, Nov. 2002, Technion (with G. Gilboa, and N. Sochen).
10. "Quasi Maximum Likelihood Blind Deconvolution of Images Using Optimal Sparse Representations", CCIT Report #455 (EE No. 1399), Dec. 2003, Technion (with A.M. Bronstein, M.M. Bronstein and M. Zibulevsky).
11. "Sampling and Reconstruction of Surfaces and Higher Dimensional Manifolds", CCIT Report #591 (EE No. 1543), June 2006, Technion (with E. Appleboim and E. Saucan).
12. "Minimal Surfaces, Measure-based Metric and Image Segmentation", CCIT Report #605 (EE No. 1562), November 2006, Technion (with V. Kluzner and G. Wolansky).
13. "Local Versus Global in Quasi-Conformal Mapping for Medical Imaging", CCIT Report #621 (EE No. 1578), May 2007, Technion (with E. Saucan, E. Appleboim, E. Barkar and R. Lev).
14. "On the Classical – And Not So – Classical Shannon Sampling Theorem", CCIT Report #680 (EE Pub. No. 1637), Jan. 2008, Technion (with E. Saucan, E. Appleboim and D. Lorenz).
15. "Geometric Approach to Sampling and Communication", CCIT Report #707 (EE Pub. No. 1664), Nov. 2008, Technion (with E. Saucan and E. Appleboim).
16. "Combinatorial Ricci Curvature and Laplacians for Image Processing", CCIT Report #722 (EE Pub. No. 1679), March 2009, Technion (with Emil Saucan, Eli Appleboim, Gershon Wolansky).
17. "Blind Separation of Time/Position Varying Mixtures", CCIT Report #758 (EE Pub. No. 1715), Feb. 2010, Technion (with R. Kaftory).

18. “The Importance of Phase in Image Processing”, CCIT Report #773 (EE Pub. No. 1730), Aug. 2010, Technion (with N. Skarbnik and C. Sagiv).
19. “Generalized Laplacians and Curvatures for Image Analysis and Processing”, CCIT Report #774 (EE Pub. No. 1731), Aug. 2010, Technion (with E. Appleboim, E. Saucan and G. Wolansky).
20. “Blind Source Separation of Instantaneous Mixtures”, CCIT Report #787 (EE Pub. No. 1744), Mar. 2011, Technion (with M. Shamis).
21. “Automatic Gain Control of Images Motivated by Human Vision”, CCIT Report #793 (EE Pub. No. 1750), Aug. 2011, Technion (with S. Furman).
22. “Superresolution of Self-similar Textures”, CCIT Report #838 (EE Pub. No. 1795), Aug. 2013, Technion (with Ido Zachevsky).
23. “Stable Image Enhancement by Approximated Forward-and-Backward Wave Equation” , CCIT Report #842 (EE Pub. No. 1799), Oct. 2013, Technion (with Vadim Ratner).
24. “On the Statistics of Natural Stochastic Textures”, CCIT Report #862 (EE Pub. No. 1819), June 2014, Technion (with Ido Zachevsky).
25. “Geometry-based distortion measures for space deformation”, CCIT Report #915 (EE Pub. No. 1872), December 2017, Technion (with Alexander Naitsata, Emil Saucana).