

CURRICULUM VITAE

• **Personal Details**

Name: Ofer Levi

Date and place of birth: July 17, 1970, Jerusalem, Israel

Address and Work phone no.

Department of Industrial Engineering and Management

Ben-Gurion University of the Negev

PO. Box 653

Beer-Sheva, 84105

08-6472213

Address and Home phone no.

12 Barkan

Lehavim, 85338

Mobile no. 058-4341056

Email: [levio123@gmail.com](mailto:levio123@gmail.com)

Fax no. 077-4702834

• **Education**

B.Sc. - 1993 – 1996 - BGU, Israel - IE&M - Suma Cum Laude, GPA 95

B.Sc. - 1994 – 1998 - BGU, Israel – Mathematics and CS - Magna Cum Laude,  
GPA 90

M.Sc. - 1996 – 1998 - BGU, Israel - IE&M - Suma Cum Laude, GPA 98

Name of advisor: Israel David

Title of thesis: Mathematical models for yield management

Combined M.Sc/Ph.D. 1998-2004 Stanford University, California - Scientific  
Computing and Computational Mathematics (SCCM),

Name of advisor: David L. Donoho (Dept. of Statistics)

Title of thesis: Multi-scale geometric analysis of 3D data sets

• **Employment History**

2013 – present

Senior lecturer,

IE&M, BGU, Israel

2005-2013

Lecturer,

IE&M, BGU, Israel

2011 – 2012

Visiting Scholar and Lecturer,

Institute for Computational and Mathematical Engineering (ICME), Stanford  
University, California (on Sabbatical leave)

2006 – 2011; 2013 – present:

Instructor,

Israeli Air Force aviation school academic program

**• Professional Activities**

- (a) Positions in academic administration  
2005 – 2011 Coordinator of the joint IE&M/Math undergraduate program,  
IE&M, BGU  
2005 – 2009: Undergraduate teaching committee, IE&M, BGU, Israel
- (b) Significant professional consulting  
2011 – 2013: Cardinal Optimization Inc., CA, USA. Development of  
computational algorithms  
2012 – 2013: CliqR, CA, USA. Implementation of scientific software on cloud
- (e) Ad-hoc reviewer for journals
  - Annals of Operations Research
  - Optics Express
  - Discrete Dynamics in Nature and Society
- (f) Membership in professional/scientific societies  
2013-current , SIAM

**• Educational activities**(a) Courses taughtAt BGU

1. Models of Linear Regression (Undergraduate)
2. Introduction to Probability and Statistics (Undergraduate)
3. Project Management (Undergraduate and Graduate)
4. Selected Topics in Signal and Image Processing (Graduate)
5. Introduction to Operations Research (Undergraduate)
6. Design of experiments and ANOVA (Undergraduate)
7. Selected topics in Statistics (Graduate)
8. Computational Linear Algebra (Graduate)
9. Computational Methods in Energy Engineering (Graduate; jointly with Prof. Michael Saunders)
10. \* Digital simulation (undergraduate)

At Stanford University:

1. Numerical Linear Algebra: (Graduate; jointly with Prof. Margot Geritssen)
2. Advanced Numerical Linear Algebra – Application of matrix computation and least squares models in digital signal and image processing:(Graduate)

(b) Research studentsPh.D. Students:

1. 2008, Yoash Hassidim, BGU, jointly supervised with H. Stern (IE&M, BGU), Sparse Decomposition of 3D data using Multi-scale Geometric Analysis. *Currently works as a senior researcher in the Experimental Neuro-Surgery Lab at the Soroka Medical Center*
2. 2009, Boris Efrati, BGU, jointly supervised with S. Rotman (EE, BGU), Multi-scale Geometric Algorithms for filamentary analysis of 3D data and Target detection. *Did a post doc in the math department at the University of Houston*
3. Enrolled, Ziv Mhabary, BGU, jointly supervised with A. Stern (Electo-Optics Eng., BGU), Non-uniform 3D Fourier transforms and their applications to 3D image processing.
4. Enrolled, Shaul Cohen, BGU, jointly supervised with A. Stern (Electo-Optics Eng., BGU) and Y. Parmet (IE&M, BGU), Dynamic analysis of radon projections using compressed sensing methods.
5. Enrolled, Salvatore Campisi, BGU, jointly supervised with G. Oron (IE&M, BGU) and E. Adar (Environmental Ecology and Microbiology, BGU), Advancing forecasting and interpretation of water occurrence in arid and semiarid regions using artificial neural network coupled with denoising pre-processing methods. \* Submitted 2014

M.Sc. Students (with thesis):

1. 2006, Oren Shapira, BGU, Parallel Algorithms for 3D Multiscale Geometric Analysis Methods.
2. 2006, Omri Safran, BGU, jointly supervised with V. Elchanatis (Volkani inst. For Agr. Eng.), Algorithm for Fruit Count in HP Images using Machine Vision.
3. 2007, Yair Alush (Communication Systems Eng. Dept.), BGU, Multi-scale Geometric Segmentation of Medical Images.
4. 2008, Ofir Harari (Math Dept.), BGU, jointly supervised with R. Peretz (Math, BGU), A New Nearly-Polar FFT and Analysis of Fourier-Radon Relations in Discrete Spaces.
5. 2008, Alina Rudenko (Bio-Med Eng. Dept.), BGU, jointly supervised with A. Ronen (IE&M, BGU), Heart rate variability analysis during a prolonged cognitive task (driving).
6. 2008, Nir Naor, BGU, Geometry based iterative algorithm for 3D reconstruction of the radiation distribution map from SPECT imaging projections.

7. 2009 Ran Cohen, BGU, jointly supervised Y. Parmet (IE&M, BGU), Statistical analysis of clients and resources behavior and interaction in a distributed computing system.
8. 2010, Tamar David, BGU, Development of algorithms and tools for the analysis of linear elements in medical images.
9. 2010, Shaul Cohen, BGU, Multi Scale Geometric Segmentation on Multispectral Images.
10. 2011, Lucas Grogin, BGU, jointly supervised with A. Friedman (Bio-med Eng., BGU), Generating 3D permeability maps from dynamic MRI scans.
11. 2011, Ziv Mhabari, Design and implementation of parallel algorithms for high dimensional multi-scale geometric segmentation.
12. 2011, Tsachy Cahana (Electro-Optical Eng. Dept), BGU, jointly supervised with A. Stern (Electro-Optics Eng., BGU), An improved pseudo-polar fast Fourier transform.
13. 2012, Avi Cohen, BGU, jointly supervised with V. Elchanatis (Volkani Inst. for Agr. Eng.), Development of thermal imaging based technology for the production of high spatial resolution water stress maps for irrigation scheduling in orchards.
14. \* 2013, Asaf Aharoni, BGU, Analysis and comparison of sparse representation and compressed sensing methods in image processing.
15. \* 2013, Polina Kurtser, BGU, with V. Gontar (IE&M, BGU), Implementation of Artificial Neural Network for classification and analysis of ECG.
16. \* Enrolled, Liran Avraham, BGU, (Direct B.Sc.-M.Sc. track) Development of cloud based web app for high level analysis of data related to individuals with special needs.
17. \* Enrolled, Adam Perelman, Analysis of 2D Low Resolution NMR signal

• **Awards, Citations, Honors, Fellowships** (including here all internal university support and prizes. Note that this section does not include research grants.)

(a) Honors, Citation Awards

- 1993 – 1996 - Dean's list (each year) for excellence in undergraduate studies
- 1997 - Rector's list for excellence in undergraduate studies
- 2003 - ISEF award for Ph.D. studies

(b) Fellowships

- 1996 – 1998 Eshkol fellowship from the Israel ministry of science for research in the field of Industrial mathematics – Total of 48K NIS
- 1998 – 1999 First year Ph.D. fellowship from Stanford University – 45K USD
- 1998 – 2003 Ph.D. fellowship from the ISEF foundation – Total of 60K USD

### • Scientific Publications

H-index – 4 by ISI (9 by Google Scholar)

#### Refereed chapters in collective volumes, Conference proceeding

1. D. L. Donoho<sup>PI</sup>, **O. Levi**<sup>S</sup>, J.-L. Starck<sup>PI</sup> and V.J. Martinez<sup>C</sup>, 2002, “Multiscale Geometric Analysis for 3-D Catalogues,” *SPIE, Astronomical Data Analysis II (Proceedings Volume)*, pp.101-11.
2. D. Donoho<sup>PI</sup> and **O. Levi**<sup>S</sup>, 2003, “Fast X-Ray and Beamlet Transforms for three-dimensional data,” *Modern Signal Processing*, MSRI publications pp. 79-116.
3. O. Levi<sup>PI</sup>, B.A. Efron<sup>S</sup>, 2005, “A New Fast Algorithm for Exact Calculation of the Discrete 2-D and 3-D X-Ray Transform,” *ICCMSE 2005, Lecture Series on Computer and Computational Sciences*, Vol.4, pp. 319-322
4. V Alchanatis<sup>PI</sup>, O Safren<sup>S</sup>, **O Levi**<sup>PI</sup>, V Ostrovsky<sup>C</sup>, JV Stafford<sup>C</sup>, 2007, “Apple yield mapping using hyperspectral machine vision”, *Precision agriculture 07, the 6th European Conference on Precision Agriculture*, Skiathos, Greece June 2007, pp. 143-150.
5. A. Stern<sup>PI</sup> and **O. Levi**<sup>PI</sup>, 2010, "Optically Compressed Sensing by undersampling the polar Fourier plane", *J. Phys.: Conf. Ser.* 206 (1) 012019. (1 citation by ISI).
6. **O. Levi**<sup>PI</sup>, S. Cohen<sup>S</sup>, Z. Mhabari<sup>S</sup>, 2010, “Effective Hyper-spectral image segmentation using multi-scale geometric analysis,” *Proceedings of IADIS International Conference Information Systems*, pp. 396-400.
7. Y. Cohen<sup>PI</sup>, V., Alchanati<sup>PI</sup>, R. Rud<sup>C</sup>, C., Rozen<sup>C</sup>, **O., Levi**<sup>C</sup>, S., Cohen<sup>S</sup>, Z., Mhabari<sup>S</sup>, 2011, Hyper-spectral and thermal images for evaluating nitrogen and water status in potato fields, *proceeding of the 8<sup>th</sup> European Conference on Precision Agriculture (ECPA)* March 2011.
8. V. Alchanatis<sup>PI</sup>, A. Cohen<sup>S</sup>, Y. Cohen<sup>PI</sup>, **O. Levi**<sup>PI</sup>, A. Naor<sup>PI</sup>, 2011, Multimodal remote sensing for enhancing detection of spatial variability in agricultural field, *Spatial2 Conference: Spatial Data Methods for Environmental and Ecological Processes Proceedings*
9. P. Kurtser<sup>S</sup>, **O. Levi**<sup>C</sup>, V. Gontar<sup>PI</sup>, 2012, Detection and Classification of ECG Chaotic Components Using ANN Trained by Specially Simulated Data, *International Conference on Engineering Applications of Neural Network*.
10. \* A. Stern<sup>PI</sup>, Y. Kashter<sup>S</sup>, and **O. Levi**<sup>PI</sup>, 2013, "Compressive moving objects localization techniques based on optical Radon projections ", to be presented at *Compressive Sensing II*, part of *SPIE-Defense Security and Sensing*.

#### Refereed articles and refereed letters in scientific journals, running numbers

1. I. David<sup>PI</sup> and **O. Levi**<sup>S</sup>, 2001, “Asset selling problems with holding costs,” *The International Journal of Production Economics* Vol. 71, pp. 317-21. (IF 2.08; 3/37; Q1).
2. I. David<sup>PI</sup> and **O. Levi**<sup>S</sup>, 2003, “A new algorithm for the multi-item exponentially-discounted optimal selection problem,” *The European Journal of Operational Research*. Vol. 153(3), pp. 782-89. (IF 2.04; 6/74; Q1).

3. J. Miao<sup>PI</sup>, F. Forester<sup>PI</sup> and **O. Levi<sup>PI</sup>**, 2005, "Equally-sloped tomography with oversampling reconstruction," *Physical Reviews*, B72, 052103, 2005. (33 citations by ISI; IF 3.77; 6/78; Q1).
4. J.L. Stark<sup>PI</sup>, V.J. Martinez<sup>PI</sup>, D.L. Donoho<sup>PI</sup>, **O. Levi<sup>C</sup>**, P. Querre<sup>C</sup>, and E. Saar<sup>C</sup>, 2005, "Analysis of the spatial distribution of galaxies by multi-scale methods," *The EURASIP Journal on Advances Signal Processing*, Vol. 15, pp. 2455-2469. (2 citations by ISI; IF 1.012; 248/402; Q3).
5. O. Safren<sup>S</sup>, V. Alchanatis<sup>PI</sup>, V. Ostrovsky<sup>PI</sup> and **O. Levi<sup>C</sup>**, 2007, "Detection of green apples in hyperspectral images of apple-tree foliage using machine vision," *Transactions of the American society for Agricultural and biological Engineers* Vol. 50(6), pp. 2303-13. (19 citations by ISI; IF 6.11; 5/15; Q2).
6. H. Golan<sup>PI</sup>, O. Israel<sup>PI</sup>, A. Frenkel<sup>PI</sup>, Y. Parmet<sup>C</sup>, A. Feintuch<sup>C</sup>, J.A. Kennedy<sup>C</sup>, **O. Levi<sup>C</sup>** and Y. Gidron<sup>C</sup>, 2009, "Brain mapping of patients with lung cancer and controls: Inquiry into tumor-to-brain communication," *Journal of Nuclear Medicine*, 50(7), 1072-75, 2009. (3 citations by ISI; IF 5.77; 6/119; Q1).
7. E. Castro<sup>PI</sup>, B. Efron<sup>S</sup> and **O. Levi<sup>C</sup>**, 2010, "Networks of polynomial pieces with applications to the analysis of point clouds and images," *Journal of Approximation Theory*, Vol. 162(1) pp. 94-130. (2 citations by ISI; IF 0.71; 106/306; Q2).
8. **O. Levi<sup>PI</sup>**, S. Cohen<sup>S</sup>, Z. Mhabari<sup>S</sup>, 2011, "Effective Hyper-spectral image segmentation using multi-scale geometric analysis," *The International Journal of Computer Information Systems and Industrial Management applications (IJCISIM)*, Volume 3, pp. 836-845.
9. S. Evladov<sup>S</sup>, **O. Levi<sup>PI</sup>**, A. Stern<sup>PI</sup>, 2012, "Progressive Compressive Imaging from Radon projections," *Optics Express*, Vol. 20, Issue 4, pp. 4260-4271. (10 citations by ISI; IF 3.55; 6/71; Q1).
10. Y. Kashter<sup>S</sup>, **O. Levi<sup>PI</sup>**, A. Stern<sup>PI</sup>, 2012, "Optical compressive change and motion detection," *Applied Optics*, Vol 51, Issue 13, (11 citations by ISI; IF 1.41; 12/71; Q1).
11. \* S. Cohen<sup>S</sup>, C. Yafit<sup>PI</sup>, V. Alchanati<sup>PI</sup>, **O. Levi<sup>PI</sup>**, 2013, "Combining spatial and hyperspectral information for delineation of homogenous management zones," *special issue on Sensing technologies for Sustainable Agriculture, Biosystems Engineering*, Vol 114, Issue 4, 435-443 (1 citation by ISI; IF 1.367; 9/15; Q3).
12. \* P. Berman<sup>S</sup>, **O. Levi<sup>PI</sup>**, Y. Parmet<sup>PI</sup>, M. Saunders<sup>PI</sup>, Z. Weisman<sup>PI</sup>, 2013 "Laplace Inversion of Low-Resolution NMR Relaxometry Data Using Sparse Representation Methods," *Concepts in Magnetic Resonance, Part A*, 42(3), 72-88. (1 citation by ISI; IF=1.24; 57/119; Q2)
13. \* P. Berman<sup>S</sup>, A. Leshem<sup>S</sup>, O. Etziony<sup>S</sup>, **O. Levi<sup>PI</sup>**, Y. Parmet<sup>PI</sup>, M. Saunders<sup>PI</sup>, Z. Weisman<sup>PI</sup>, , 2013 "Novel 1H Low Resolution (LR)-NMR Applications for the Field of Biodiesel", *Biotechnology of Bio-Fuels*, 2013, 6:55. (IF 5.55; 11/183; Q1).

14. \* P. Berman, N. Meiri, L. Colnago, T. Moraes, C. Linder, **O. Levi**, Y. Parmet, M. Saunders, Z. Wiesman, 2014, "Study of liquid phase molecular packing interactions and morphology of fatty acid methyl esters (biodiesel) by 1H low field nuclear magnetic resonance relaxometry", accepted to *bio-technology for biofuels*, 2014

#### Published scientific reports and technical papers

1. D. Donoho, M. Duncan, X. Hou and O. Levi, About Wavelab, technical report of the department of Statistics at Stanford University 1999.
2. S. Choi, D. Donoho, A. Flesia, X. Hou, O. Levi and D. Shi, About BeamLab - a Toolbox for New Multiscale Methodologies, technical report of the department of Statistics at Stanford University 2002.

#### • **Lectures and Presentations at Meetings and Invited Seminars**

##### Presentation at conferences/meetings

#### **2006**

1. Super fast algorithm for effective multi-scale geometric decomposition of 3D images  
New Mathematics and Algorithms for 3D Image Analysis, University of Minnesota  
(Poster)
2. Multi-scale geometric segmentation of 3D medical images,  
Israel-France meeting on Medical Imaging Technology, Hadassah University  
Hospital, Jerusalem.

#### **2007**

3. Matching pursuit under the gown of linear regression (**Poster**)  
Bay Area Numerical Computing Day, Stanford, California

#### **2008**

4. Main Achievement of Gene Golub  
Golub Memorial Day, Tel Aviv University
5. Matching pursuit under the gown of linear regression  
ORSIS Meeting, Shfayim, Israel
6. Matching pursuit under the gown of linear regression  
International Conference on Industrial Logistics, Tel Aviv

#### **2009**

7. Perfect diagonal preconditioners for non-uniform Discrete Fourier Transforms  
GAMM Workshop, Applied and Numerical Linear Algebra, ETH Zurich,  
Switzerland

#### **2010**

8. Optimal Sailing Policy  
Industrial Engineering meeting, Tel Aviv

#### **2011**

9. Optical Compressed Imaging,  
satellite research day, Ben-Gurion University of the Negev, Beer-Sheva

#### **2012**

10. Direct and exact PPFIT and radon transforms using orthogonalizing weights  
Inzell summer school, New Trends and Directions in Harmonic Analysis,

Fractional Operator Theory, and Image Analysis Inzell, Germany

11. Condor integrated cloud bursting for dynamic brain imaging applications  
Condor week, University of Wisconsin at Madison, Wisconsin
12. Innovations in Imaging and Surveillance Systems for Homeland Security  
Israeli Tech Fair at Beth El Synagogue Center in Westchester (on behalf of  
AABGU), NY

### 2013

13. \* Optimal Sailing Policy, ORSIS Meeting, Beer-Sheva, Israel
14. \* Laplace Inversion of Lr-Nmr Relaxometry Data Using Sparse Representation  
Methods, SIAM Conference on Geometric and Physical Modeling, Denver,  
Colorado.

### 2014

15. \* Sparse representation of heart-rate variability signals, PNWNAS 2014 (Pacific  
Northwest Numerical Analysis Seminar), Portland State University

### Seminar presentations at universities and research institutions

#### 2005

1. Direct and exact inverse PPFFT and Radon Transforms using orthogonalizing weights  
Department of Applied Mathematics, UCSD, California
2. Direct and exact inverse PPFFT and Radon Transforms using orthogonalizing  
weights Linear Algebra and Optimization seminar, ICME, Stanford University,  
California

#### 2006

3. Direct and exact inverse PPFFT and Radon Transforms using orthogonalizing weights  
Department of Computer Science, UBC, Vancouver, Canada
4. Super fast algorithm for effective multi-scale geometric decomposition of 3D  
images Computer Science Department, Technion Institute of Technology
5. Super fast algorithm for effective multi-scale geometric decomposition of 3D  
images Linear Algebra and Optimization seminar, ICME, Stanford University,  
California
6. Multiscale Geometric Analysis of 2-D and 3-D Images  
Colloquium of the Mathematics Department, University of Houston

#### 2007

7. Matching pursuit under the gown of linear regression  
Department of Statistics, Haifa University
8. Multiscale Geometric Analysis of 2-D and 3-D Images  
HasyLab, DESI, Hamburg, Germany
9. The Octa-Polar Fast Fourier Transform

Linear Algebra and Optimization seminar, ICME, Stanford University, California  
**2009**

10. Reminiscences of Gene Golub's life  
 Linear Algebra and Optimization seminar, ICME, Stanford University, California
11. Optically Compressed Sensing  
 Linear Algebra and Optimization seminar, ICME, Stanford University, California
12. Sparse representation for effective analysis and processing of digital Images  
 Israeli Nuclear Research Center (Kamag), Dimona.

**2010**

13. Sparse representation of ECG signals for the estimation of pain level,  
 Linear Algebra and Optimization seminar, ICME, Stanford University, California

**2012**

14. Condor integrated cloud bursting for dynamic brain imaging applications  
 ICME Colloquium, Stanford University, California
15. Sparse representation of heart-rate variability signals, High dimensional data seminar, the Department of Biostatistics, Harvard University, Boston
16. Remote sensing using multi-scale geometric segmentation analysis of hyper-spectral images, Environmental statistics seminar, the Department of Biostatistics, Harvard University, Boston
17. Application of computational methods and optimization in image processing  
 Linear Algebra and Optimization seminar, ICME, Stanford University, California

**2013**

18. Laplace Inversion of Lr-Nmr Relaxometry Data Using Sparse Representation Methods, Math-CS Department Colloquium, Ariel University

**2014**

19. Laplace Inversion of Lr-Nmr Relaxometry Data Using Sparse Representation Methods, LA/Optimization Seminar, ICME, Stanford University

#### • Research Grants

##### a. granted

1. December 2005, from the Ministry of Science, O Levi (PI), Y. Cohen (PI), V. Elchanatis (PI), Volcani Institute for Agricultural Engineering, Israel, Development of the scientific infrastructure for incorporating future multi- and hyper- spectral satellite imagery like Venus in precision agriculture applications, \$200,000 for 3 years.
2. October 2006, BARD grant, O. Levi (PI), A.Karniel T. Burks (PI), University of Florida and V. Elchanatis (PI), Volcani Institute for Agricultural Engineering, Israel. Collaborating Investigator from BGU, Enhancement of Sensing Technologies for selective Tree Fruit Identification and Targeting in Robotic Harvesting Systems, \$60,000 for 2 years.

##### b. Rejected

1. 2004, Ministry of infrastructure, analyzing geometric structures in the 3D galaxy distribution and in Macro-molecules, jointly with Boaz Shaanan, life sciences,

- BGU and Avishai Dekel, Physics, the Hebrew University.
2. 2005, US military, equally sloped tomography in electron microscopy, jointly With John Miao, Physics department, UCLA
  3. 2007, Center for complexity sciences, Mathematical models for analyzing the Blood Brain Barrier through Dynamic MRI, jointly with Alon Friedman, Neurophysiology, Soroka medical center, Ilan Shelef, Radiology, Soroka medical center, Ronen Peretz, Mathematics, BGU
  4. Biodiesel from Bio-waste for near zero emission vessel, jointly with Z. Wiesman and multiple European partners, submitted to the Horizon 2020 Program.

**c. Wasn't granted due to unavailability of funds**

1. Alternative Fuel knowledge center, jointly with Zvi Dovinski, Shosh Arad, Zeev Weisman, Eli Morag, Yisrael Parmet, in submission process to the Israeli ministry of science submitted 2012

**• Present Academic Activities**

Submitted journal papers

1. S. Ladany<sup>PI</sup>, **O. Levi<sup>PI</sup>**, “Optimal sailing policy” submitted to *Operations Research*, 2014.
2. S. Campisi-Pinto<sup>S</sup>, **O. Levi<sup>PI</sup>**, Lior Rokach<sup>PI</sup>, Gideon Oron<sup>PI</sup>, “Multiple Linear Regression coupled with feature engineering for inferring class “A” pan evaporation” submitted to *journal of environmental engineering*, 2014.
3. S. Tejman-Yarden<sup>PI</sup>, **O. Levi<sup>PI</sup>**, A. Beizerov<sup>S</sup>, Y. Parmet<sup>PI</sup>, T. Nguyen<sup>S</sup>, M. Saunders<sup>PI</sup>, Z. Rudich<sup>PI</sup>, J. Perry<sup>PI</sup>, D. Baker<sup>PI</sup>, T. Moeller-Bertram<sup>PI</sup>, “Heart rate analysis by sparse representation for acute pain detection” submitted to *Biomedical Signal Processing and Control*, 2014.

Research in progress

1. An improved Pseudo-Polar Fast Fourier Transform, T. Cahana<sup>S</sup>
2. Orthogonalizing weights for Discrete Fourier Transform
3. The SHAS Algorithm for fast and accurate 3D Beamlet Transforms, B. Efrati<sup>S</sup>.
4. Cell response function: an innovative approach for iterative 3D SPECT Reconstruction, N. Naor<sup>S</sup>, H. Golan<sup>PI</sup>,
5. I, David, A. Krasnosielska-Kobos, O. Levi, On the multi-item, full-information best choice problem

**• Additional Information**In progress grants proposals

1. **O. Levi** (PI), O. Shriki (PI), Sparse Representations for Feature Extraction in Brain-Computer Interfaces, pre-proposal was submitted to Intel and approved.

Research and academic roles and activities

2004: Founder of the Parallel Computing Lab IE&M, BGU

2008: Main organizer of the memorial scientific meeting for the late Professor Gene Golub in Tel-Aviv University, Feb 2008.

2011 – present: Academic faculty in the unit of Energy Engineering at BGU

Entrepreneurship

Cofounder of Optical Compressed Sensing Ltd. Jointly with Adrian Stern and BG Negev

Volunteer activities and roles

- Treasurer of the Israeli Student Organization at Stanford 1999-2000
- president of the Israeli Student Organization at Stanford 2000-2002
- Science is Elementary volunteer teacher for Kindergarten kids from disadvantaged background 2011-2012, Mountain View, California, USA
- Volunteering activity in Mekif Gimmel high school, Beer Sheva, Israel

Development of software packages

1. Software development team member in the **Wavelab** Matlab functions package for signal and image processing using wavelet analysis that was developed in the statistics department at Stanford University.  
<http://www-stat.stanford.edu/~wavelab/>
2. Software development team member and contributor to the **Beamlab** Matlab functions package for beamlets, ridgelets and curvelets algorithms that was developed in the statistics department at Stanford University.  
<http://www-stat.stanford.edu/~beamlab/>