CURRICULUM VITAE - Prof. Asher Yahalom

Date Updated: March 6, 2020

Faculty: Engineering

Department: Electrical & Electronic Engineering

Web: https://www.researchgate.net/profile/Asher_Yahalom

1. PERSONAL DATA

Name: Asher Yahalom

Address: Shlomo Hillels 9, Givaat Shmuel 5403709, Israel

Phone (Home): +972-3-5320211

Phone (Cellular): +972-54-7740294

E-mail: asya@ariel.ac.il

Birth: 15 November 1968 - Jerusalem - Israel

ID: 023870819

Status: Married to Hadass (a Judge, president of the labor court in Tel-Aviv) + 3

Military Service: 1986-1989 Regular Service - Staff-Sergeant, 1989-2008 Reserve, Infantry – Company Sergeant-Major, Second Lebanese War Decoration 2007

2. EDUCATION

Degree	Subject	University	Year	Thesis Supervisor	Thesis title
B. Sc	Physics & Mathematics	Hebrew University	1986-1990		
M.Sc	Physics	Hebrew University	1990-1991	Prof. J. Katz	On the Effective Potential of a Stationary Flow with Given Circulation's
PhD	Physics	Hebrew University	1992-1996	Prof. J. Katz	Energy Principles for Barotropic Flows with Applications to Gaseous Disks

3. POSITIONS IN ACADEMIC INSTITUTIONS

Dates	University	Position	%
1990-1995	Hebrew University	Assistant Teacher and Laboratory Instructor	100
1998-1999	Tel-Aviv University	Post-Doctoral Fellow	100
1999-2007 2007-2012 2013-	College of Judea & Samaria Ariel University Center of Samaria Ariel University	Academic Director: FEL Radiation User Center	25
1999-2001	College of Judea & Samaria	Lecturer	100
2000	Tel-Aviv University	Research Associate	25
2001-2006	College of Judea & Samaria	Senior Lecturer	100
2002	Tel-Aviv University	Research Associate	20
2002-2003	Neeman Institute, Technion	Research Associate	20
2004	College of Judea & Samaria	Tenure	
2004-2005	College of Judea & Samaria	Associate Head of the Department of Electronic & Electrical Engineering	
2005-2006	University of Cambridge Cambridge, UK	Senior Academic Visitor	100
2006 -2007 2007-2012	College of Judea & Samaria Ariel University Center of Samaria	Associate Professor	100
2008	University of Cambridge Cambridge, UK	Visiting Professor	16
2012	Newton Institute, Cambridge, UK	Visiting Fellow	50
2013-	Ariel University	Full Professor	100
2014-2017	Ariel University	Head of the Department of Electronic & Electrical Engineering	100
2018-2019	Ariel University	Vice Dean of the Faculty of Engineering	100
2019-2020	Princeton University Princeton, USA	Visiting Professor	33

4. SCHOLARSHIPS & PRIZES

1) Talpiot (IDF) Scholarship for Under-Graduate studies (1986-1988).

2) Racah Inst. Scholarship for M.Sc. studies (1989-1991).

3) Schindler Award for the Best M.Sc. Thesis (1991).

4) Racah Inst. Scholarship for Ph.D. studies (1991-1995).

5) Pikovski - Vallechy: Post-Doc scholarship (1998-99).

6) Ministry of Science: Post-Doc scholarship (1998-99).

7) Gravity Research Foundation - 2009 Honorable Mention.

8) Gravity Research Foundation - 2010 Honorable Mention.

9) Gravity Research Foundation - 2011 Honorable Mention.

10) Excellence in teaching & research Certificate-Ariel University Center (2011-2012).

11) Newton Institute (Cambridge) - 2012 Visiting Fellow scholarship.

12) Gravity Research Foundation - 2017 Honorable Mention.

13) Elevator Pitch Competition, Technology Track 1st place – awarded to "Diamond Grading" the 5th biennial conference of Israel's Technology Transfer Organization (ITTN), 22nd October, 2018.

14) Gravity Research Foundation - 2019 Honorable Mention. For the Essay "Is Dark Matter Due to Retardation?"

15) Princeton University - 2019 Visiting Fellow Scholarship.

5. GRANTS

1) A. Yahalom "A Fast Simulation Technique for Fluid Dynamics" MSR Center of Development of Technological Innovation's - Israel's Ministry of Industry & Commerce (1998-2000). [30,000 SH].

2) A. Gover, J. Pinhasi, A. Yahalom, J. Shiloh, A. Levin, R. Shuker, "Development of Photo-Cathode e-gun Technology for FEL" Ministry of Science (1999-2002). [1,800,000 SH].

3) J. Pinhasi & A. Yahalom "Active Imaging with mm Waves in the W Regime Using a FEL Radiation Source" Ministry of Defense (2000-2003). [250,000 SH].

4) A. Yahalom "Fluidex - Developing Fast Fluid Dynamics Simulation" Hamama Orit- Ministry of Industry & Commerce (2001-2003). [300,000 $].

5) J. Pinhasi, A. Yahalom & A. Gover, "Upgrading FEL Radiation Source for Processing and Characterizing Super Conduction Materials" Ministry of Infra Structure (2001-2003). [900,000 SH].

6) G. Grader, J. Pinhasi, A. Yahalom, A. Goldstein & J. Yeshoron "Sintering High Temperature Super- Conducting Materials with Free Electron Laser Radiation" Ministry of Infra Structure (2001-2004). [900,000 SH].

7) J. Pinhasi, A. Yahalom & Y. Lurie, "Simulations of the interaction of electrons with wide band radiation in a wave guide using variational techniques" Israel Science Foundation (2001-2004). [$ 87,000 + $ 20,000 equipment]

8) J. Pinhasi & A. Yahalom "Analysis of a Wide Band EHF Radio Channel" Israeli Consortium of Software Radio (2002-2003). [$ 200,000]

9) A. Gover, J. Pinhasi, A. Yahalom & A. Zinigrad "Free Electron Laser – Millimeter Wave Radiation and Applications" Ministry of Science – Infra structural knowledge centers (2002-2007). [3,600,000 SH]

10) A. Yahalom and G. Pinhasi "Automatic Meshing of Complex Flows" General Motors Foundation (2002). [$ 15,000]

11) J. Pinhasi & A. Yahalom “Development of a Space-Frequency Model for Wide Band Indoor Communications" Israeli Consortium for Short Range Communications (2004-2009). [1,000,000 SH]

12) B. Kapilevich, M. Einat, J. Pinhasi, A. Yahalom & A. Zinigrad “Development of a Passive Imaging System in the Millimeter Wave Regime” Israeli Consortium for Hidden Objects Detection (2004-2007). [852,000 SH]

13) Y. Pinhasi, A. Yahalom, B. Kapilevich & A. Gover “Design of a novel resonator for FEL” Ministry of Defense (2004). [100,000 SH]

14) A. Gover, B. Kapilevich, Y. Pinhasi, A. Yahalom & M. Einat “Development of THz Sources and Technologies” Ministry of Defense (2004-2005). [900,000 SH]

15) Y. Pinhasi & A. Yahalom “Development of generalized model for atmospheric propagation of millimeter, sub-millimeter and THz electro-magnetic waves” Ministry of Defense (2005-2006). [385,000 SH]

16) A. Yahalom & Y. Pinhasi “Active imaging using FEL” Ministry of Defense (2005). [100,000 SH]

17) Y. Pinhasi & A. Yahalom “Using millimeter and THz radiation for detection of far hidden objects” Israeli Consortium for Hidden Objects Detection (2006-2007). [310,000 SH]

18) A. Yahalom, Y. Pinhasi, M. Einat & B. Kapilevich “Transport experiments, magnetic measurements & increasing the frequency in the Israeli Free Electron Laser by reduction of the wiggler period” Ministry of Defense (2006-2007). [250,000 SH]

19) A. Yahalom & M. Einat “HPM testing of consumer electronics” Signext (2006-2007). [18,000 $]

20) Y. Pinhasi, A. Yahalom & M. Einat “A sub-millimeter coherent RADAR for remote imaging using heterodyne detection” Ministry of Defense (2007-2008). [1,200,000 SH]

21) A. Yahalom & Y. Pinhasi “High Frequency Communication Technology for Small Satellites” Ministry of Science (2007-2008). [175,000 SH]

22) A. Yahalom, Y. Pinhasi & M. Einat “Active imaging behind walls and barriers using FEL radiation” Ministry of Defense (2008). [100,000 SH]

23) Y. Pinhasi, A. Gover & A. Yahalom, "Terrestrial System for radiative energy transmission at millimeter wavelengths" Ministry of Infra Structure (2009-2010). [200,000 SH].

24) A. Yahalom, Y. Pinhasi & M. Einat “THz Infrastructure” Ministry of Defense (2008-2009). [100,000 SH]

25) J. Levitan, A. Yahalom, K. Komashvili, M. Firer, S. Aronov, B. Kapilevich "Investigation of W-band Waves Effect on Cancer Cells" Ariel University of Samaria Fund (2009-2010). [25,000 SH].

26) Moshe Einat & Asher Yahalom, "The effect of MobileTek Device on a Mobile Phone Static Magnetic Field" MobileTek Equalize (2010-2011). [30,000 SH].

27) A. Yahalom, Y. Pinhasi, A. Lipsky & N. Miteva “Measurement of Electricity Quality and Malfunction Localization in High Voltage Networks” Israeli Smart Grid Consortium (ISG) Sponsored by the Israeli Ministry of Industry and Commerce (2011-2014). [420,000 SH].

28) A. Yahalom, B. Kapilevich & D. Michaeli "THz near-field imaging for bio-medical research" Ariel University of Samaria Fund (2011). [5,000 SH].

29) A. Yahalom, Y. Pinhasi, A. Lipsky & N. Miteva “Development of Mathematical Models of Power Networks Operation Modes for Optimization” Israeli Ministry of Infrastructure (2012-2014). [418,499 SH].

30) Jesper Mygind, Susanne Brix Pedersen, Uffe Hasbro Mortensen, Jacob levitan, Asher Yahalom, Konstantin Komoshvili, Stella Aronov and Henrik Bohr "Soft Non-Thermal Radiation Selective Treatment of Cancer Cells and Gene Repair Systems" Eva and Henry Fraenkel Memorial Foundation (2012). [100,000 DKK].

31) Asher Yahalom “Promotion grant for excellent researchers” Ariel University (2014). [45,000 SH].

32) Jacob levitan, Asher Yahalom, Konstantin Komoshvili and Stella Aronov "Non-thermal effect of millimeter waves on human lung cancer cells: mortality and senescence effects" ACACR Ariel Center for Applied Cancer Research (2014). [30,000 SH].

33) Asher Yahalom "Magnetohydrodynamics as a Field Theory, Topological and Group Theoretical Aspects" Ariel University Internal Grant (2014). [10,000 SH].

34) Asher Yahalom & Moshe Einat “Empiric Study of Relativistic Lift” Elbit Systems (2015). [218,500 SH].

35) Konstantin Komoshvili, Jacob levitan and Asher Yahalom "Donation to Cancer Project" Ariel University (2016). [5,257 SH].

36) Yosef Pinhasi & Asher Yahalom “Technique and System for Detection of Failure Location in High Voltage Electrical Power Line Distribution Networks” Ariel University R&D Company (2016). [25,000 SH].

37) Avraham Katz, Stella Aronov, Konstantin Komoshvili, Jacob levitan and Asher Yahalom "Understanding the anti-cancer mechanism of MMW on lung cancer for use in diagnostic and treatment" Multidisciplinary studies of medical and natural sciences Ariel University (2016). [19,250 SH].

38) Yosef Pinhasi, Asher Yahalom & Haim Cohen “Characterizing Diamonds by their Electromagnetic Properties” Ariel University R&D Company (2016). [20,000 SH].

39) Asher Yahalom & Shalem Yahalom "Physical aspects of Jewish law prevention to use electricity on the Sabbath” Ariel University (2016). [10,000 SH].

40) Jacob levitan, Asher Yahalom, Konstantin Komoshvili and Stella Aronov "Effect of millimeter waves on melanoma and lung cancer mice models: the examination of the efficient conditions for suppression of subcutaneous tumor". ACACR Ariel Center for Applied Cancer Research (2016). [20,000 SH].

41) Kfir Dagan & Asher Yahalom "Shunt Regulated Permanent-Magnet Generation System" Ministry of Energy (2016-2017). [65,790 SH].

42) Haim Cohen, Asher Yahalom & Yosef Pinhasi "Diamond Characterization Using Microwave and Millimeter Wave Spectroscopy" Kamin program, Sponsored by the Israeli Ministry of Economics (2017-2019). [630,000 SH].

43) Asher Yahalom "Encouragement for Excellent Researchers of the Academic Year (2017-2018)" Ariel University Internal Grant (2018). [20,000 SH].

44) Idit Avrahami, Asher Yahalom & Yosef Pinhasi "Locating faults in liquids and gases pipes and related systems" Ariel Company Pre-Kamin Grant (2019). [20,000 SH].

45) Asher Yahalom "Smoke Electrostatic Barrier" Ministry of Defense (2019). [90,000 SH].

46) Nathaniel Fisch & Asher Yahalom "Applications of Topological Techniques to Fluid Dynamics and Magnetohydrodynamics" a collaboration project of Princeton & Ariel Universities. Ariel University Internal Grant (2019). [20,000 SH].

47) David Herak & Asher Yahalom "Thimble - Every Screen is a Touch Screen" a collaboration project of Czech University of Life Sciences Prague & Ariel University. Ariel University Internal Grant (2019). [15,000 SH].

48) Wolfgang Tichy & Asher Yahalom "The effect of Relativistic Retardation on Galactic Rotation Curve" a collaboration project of Florida Atlantic University & Ariel University. Ariel University Internal Grant (2019). [10,000 SH].

49) Moshe Averbuch & Asher Yahalom "Electrostatic generator with improved parameters of power and efficiency". Ariel Company Pre-Kamin Grant (2020). [42,000 SH].

Technological Achievements

1) Design of SF permanent magnet for a low field- whole body- MRI.
2) Implementation of novel shimming methods and algorithms, for magnetic field corrections.
3) Installation of MaRex (Direx Medical Systems MRI) in hospitals both in Israel and abroad.
4) Design of a SF strong permanent magnet (2000 Gauss) for extremity only MRI (1999).
5) Design of a SF strong permanent magnet (1500 Gauss) for a full body MRI (2000).
6) Development of a CFD code bases on previous developed variational principle for incompressible flows, the code achieved less than a second solution time for a 100 X 100 Cartesian grid (2001).
7) Development of a CFD code bases on previous developed variational principle for incompressible flows, on a non structured grid (2001)
8) Developments of codes for allocation of a CT cross-section in space (2001).
9) Development for codes for fusion of a MRI and CT Images (2001).
10) Automatic fusion of a MRI and CT Images without a physician's intervention (2002).

COURSES

Course	Department	Institution	Years
Logic Design	Electronic Engineering	College of Judea & Samaria Ariel University Center of Samaria Ariel University	1999-2005 2007-2012 2014
Digital Systems	Electronic Engineering	College of Judea & Samaria Ariel University Center of Samaria Ariel University	2000-2005 2008-2012 2013-
Random Signals and Noise	Electronic Engineering	College of Judea & Samaria Ruppin Academic Center Ariel University Center of Samaria Ariel University	1999-2007 2006 2007-2012 2013-

Electromagnetism	Electronic Engineering	College of Judea & Samaria Ariel University Center of Samaria	2006 2008-2012
Advanced Electronics Laboratory for Physicists	Physics	College of Judea & Samaria Ariel University Center of Samaria	2007 2008-2012
Advanced Mathematics (A MSc course)	Electronic Engineering	Ariel University Center of Samaria Ariel University	2007-2012 2014-
Basic Electronics Laboratory 1	Electronic Engineering	Ariel University Center of Samaria	2007-2012
Basic Electronics Laboratory 2	Electronic Engineering	Ariel University Center of Samaria	2008-2012

MSc, PhD & Post-Doc Supervision

1. Mr. Shlomo Peleg “Development of a Multi-Stage Collector” (2002-2005) (MSc)
2. Mr. Zvi Nemas “A model for indoor communications” (2008-) (MSc)
3. Dr. Alon Eliran "Application of Millimeter Waves for the Assessment of Soil Salinity" (2008-2017) (PhD)
4. Mr. Erez Yadgar "Design of a THz slot antenna for RADAR applications" (2008-2016) (MSc)
5. Mr. Shay Rozenberg "Analytic model for a THz slot antenna" (2008-2014) (MSc)
6. Mr. Elhanan Shifman "Multi Layer aspects of indoor communications" (2009-2013) (MSc)
7. Mr. Uri Nissan "Moving Target Speed Calibrator for 6F Multanova Speed Radar (34.3GHz)" (2012-2015) (MSc)
8. Mr. Ofir Plum "Application of Ehrenfest’s Theorem as a Measure for Chaos" (2013-2015) (MSc)
9. Mr. Michael Suleymanov "Covariant relativistic space-time string - the spectrum" (2013-2015) (MSc)
10. Mr. Eyal Magori “Design of a Halbach Wiggler” (2015-2016) (MSc)
11. Mr. Itzhak Chaimov “A Novel Method for Wiggler Shimming” (2015-2018) (MSc)
12. Mr. Joseph Rabinovich “Classifying Diamonds using Electromagnetic Fields” (2017-) (PhD)
13. Mr. Moshe Callen (2016-) (PhD)
14. Mr. Moneer Nevoani (2017-) (PhD)
15. Dr. Shailendra Rajput (2017-2020) (Post Doc)
16. Ms. Michal Wagman (2019-2020) (PhD)
17. Mr. Amir Poznanski (2019-) (MSc)
18. Mr. Haim Rodal (2019-) (PhD)

Prof. Asher Yahalom - List of the publications - October 2019

Books

1) Asher Yahalom "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. doi:10.2174/9781608051953110101. http://www.benthamscience.com/ebooks/9781608051953/index.htm

2) Yakir Z. Shoshani and Asher Z. Yahalom "The Elusive God" 2019. Cambridge Scholars Publishing, Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK, ISBN (10): 1-5275-3872-9, ISBN (13): 978-1-5275-3872-6

Chapters in Books

3) A. Yahalom "Hukot Shamaim Vaaretz" (Hebrew). Scientific appendix to a modern interpretation of the book of Genesis- Daat Mikrah by Y. Kil. Mossad Harav Kook (Publishing House), Jerusalem (1997).

4) R. Englman and A. Yahalom "The Jahn-Teller Effect: A Permanent Presence in the Frontiers of Science" a chapter of the volume "Vibronic Interactions: Jahn-Teller Effect in Crystals and Molecules" p. 5-14 edited by M.D. Kaplan and G.O. Zimmerman (Kluwer Academic Publishers 2001). [Los-Alamos Archives cond-mat/0407226]

5) R. Englman and A. Yahalom "Complex States of Simple Molecular Systems" a chapter of the volume "The Role of Degenerate States in Chemistry" edited by M. Baer and G. Billing in Adv. Chem. Phys. Vol. 124 (John Wiley & Sons 2002). [Los-Alamos Archives physics/0406149]

6) Asher Yahalom & Yosef Pinhasi "Control of Intense Millimeter Wave Propagation by Tailoring the Dispersive Properties of The Medium" a chapter in the book (pages 219-239) "Quasi-Optical Control of Intense Microwave Transmission" NATO Science Series II: Mathematics, Physics and Chemistry, Vol. 203 Hirshfield, Jay L.; Petelin, Michael I. (Eds.) 2005

7) Yosef Pinhasi & Asher Yahalom: "Space-frequency model of ultra wide-band interactions in millimeter wave masers" , a chapter in the book (pages 253-270) "Quasi-Optical Control of Intense Microwave Transmission" NATO Science Series II: Mathematics, Physics and Chemistry, Vol. 203 Hirshfield, Jay L.; Petelin, Michael I. (Eds.) 2005

8) Asher Yahalom "New Variational Principles of Fluid Dynamics and Magnetohydrodynamics" a chapter in a book "Recent Research Developments in Physics" 8 (2009). Editor S. G. Pandalai, 231-308 ISBN: 978-81-7895-346-5 Transworld Research Network, T. C. 37/661(2), Fort Post Office, Trivandrum - 695023, Kerala, India.
http://www.ressign.com/UserBookDetail.aspx?bkid=1107&catid=207

9) Asher Yahalom "Advances in the Field Theory of Flows" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. http://www.bentham.org/ebooks/9781608051953/index.htm.

10) Asher Yahalom " Advances in the field theory of dissipative electromagnetic fields" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011.
http://www.bentham.org/ebooks/9781608051953/index.htm.

11) Asher Yahalom " Variational analysis of electromagnetic fields in closed and open structures" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011.
http://www.bentham.org/ebooks/9781608051953/index.htm.

12) Asher Yahalom " Advances in the field theory of Magnetohydrodynamics" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011.
http://www.bentham.org/ebooks/9781608051953/index.htm.

13) Asher Yahalom " The geometrical meaning of time - the emergence of the concept of time in the general theory of relativity" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. http://www.bentham.org/ebooks/9781608051953/index.htm.

14) Asher Yahalom " The Emergence of non Abelian Gauge Field Theory from the Born - Oppenheimer Treatment" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. http://www.bentham.org/ebooks/9781608051953/index.htm.

15) Yosef Pinhasi, Asher Yahalom & Gad A. Pinhasi "Ultra-Wide Band Communications in the Extremely High Frequency (EHF) Band" Chapter 7 in the book "Communication Systems: New Research", pp. 269-286, Nova Science Publishers. Series: Media and Communications - Technologies, Policies and Challenges, Binding: Hardcover, Pub. Date: 2013, 432 pp., 7x10 - (NBC-C), ISBN: 978-1-62618-654-5.

Patents

16) A. Yahalom, "Method and System for Numerical Simulation of Fluid Flow" US patent 6,516,292 (2003).

17) Haim Cohen, Amir Poznansky, Asher Yahalom, Yehoshua Cohen, Micha Bistritcki, Gad Benett "Transaction Card with Improved Security Features" US Patent 8,256,667 (September 4, 2012).

18) Haim Cohen, Amir Poznansky, Asher Yahalom, Yehoshua Cohen, Micha Bistritcki, Gad Benett "Transaction Card with Improved Security Features" Great Britain Patent GB2476987 (November 27, 2013).

19) Amir Poznansky & Asher Yahalom "Electronic Remote Control Thimble" US Patent 9,092,054, filed 16/4/13 (claiming priority to US Provisional Application No. 61/624,541, filed April 16, 2012). Publication date Jul 28, 2015.

Refereed Journal Articles

20) J. Katz, S. Inagaki, and A. Yahalom, "Energy Principles for Self-Gravitating Barotropic Flows: I. General Theory", Pub. Astro. Soc. Japan 45, 421-430 (1993). [Los-Alamos Archives astro-ph/9501048]

21) A. Yahalom, J. Katz and S. Inagaki, "Energy Principles for Self-Gravitating Barotropic Flows: II. The Stability of Maclaurin Flows", Mon. Not. Roy. Astro. Soc. 268, 506-516 (1994). [Los-Alamos Archives astro-ph/9308001]

22) A. Yahalom, "Helicity Conservation via the Noether Theorem" J. Math. Phys. 36, 1324-1327 (1995). [Los-Alamos Archives solv-int/9407001]

23) R. Englman and A. Yahalom, "Cortical Dynamics and Awareness State: An Interpretation of Observed Interstimulus Interval Dependence in Apparent Motion" Physica A, 260 (Nos. 3-4), 555 (1998). [Los-Alamos Archives quant-ph/0406186]

24) M. Baer, A. Yahalom & R. Englman, "Time Dependent and Time Independent Approaches to Study Effects of Degenerate Electronic States" Journal of Chemical Physics, 109, 6550 (1998).
25) R. Englman, A. Yahalom & M. Baer, "Phase-Modulus Relations in Cyclic Wave Functions" Physics Letters A, 251, 223-228 (1999). [Los-Alamos Archives quant-ph/ 0406218]
26) R. Englman & A. Yahalom," Reciprocity between Moduli and Phases in Time-Dependent Wave-Functions" Physical Review A, 60, 3, 1802-1810 (1999). [Los-Alamos Archives quant-ph/0406 217]
27) R. Englman, A. Yahalom & M. Baer," The Open Path Phase for Degenerate and Non-degenerate Systems and its Relation to the Wave-function Modulus" EPJ D, 8, 1-7 (2000).). [Los-Alamos Archives physics/0406122]
28) R. Englman & A. Yahalom," Conductivity - Phase Determination in Double Slit Transmission across a Quantum Dot by Hilbert Transform Method" Phys. Rev. B, 61, 2716-2720 (2000). [Los-Alamos Archives cond-mat/0406724]
29) A. Yahalom & R. Englman," Time Determination by Wave-Packet Evolution" Foundation of Physics Letters, 13, 4, 329-343 (2000). [Los-Alamos Archives - cond-mat/0007142]
30) A. Yahalom & R. Englman, "Switching of Geometric Phase in Degenerate Systems" Physics Letters A, 272, 166-173 (2000). [Los-Alamos Archives - cond-mat/0007204]
31) A. Abramovich, Y. Pinhasi, A. Yahalom, D. Bar-Lev, S. Efimov and A. Gover "Optimization of Power Output and Study of Electron Beam Energy Spread in a Free Electron Laser Oscillator" Nuclear Instruments & Methods A, 475, 579-582 (2001).
32) A.M. Mebel, A. Yahalom, R. Englman and M. Baer, "The Study of Conical Intersections between Consecutive Pairs of the Five Lowest ^{2}A'-States of the C_2H Molecule", Journal of Chemical Physics, 115, 8, 3673-89, (2001).
33) Y. Pinhasi, Y. Lurie and A. Yahalom "Model and Simulation of Wide-Band Interaction in Free-Electron lasers" Nuclear Instruments & Methods A, 475/1-3, 147-152, (2001). [Los-Alamos Archives - physics/0607257]
34) Yosef Pinhasi, Yuri Lurie, Asher Yahalom and Amir Abramovich "Space-frequency model of amplified spontaneous emission and super-radiance in free electron laser operating in the linear and non-linear regimes" Nuclear Instruments & Methods A, 483, 510-515 (2002). [Los-Alamos Archives - physics/0406125]
35) R. Englman & A. Yahalom, "Signed Phases and Fields Associated with Degeneracies" Acta Phys. et Chim., 34-35, 283 (2002). [Los-Alamos Archives - quant-ph/0406194]
36) R. Englman, A. Yahalom and M. Baer," Hierarchical Construction of Finite Diabatic Sets, By Mathieu Functions", Int. J. Q. Chemistry, 90, 266-272 (2002). [Los-Alamos Archives -physics/0406126]
37) R. Englman, A. Yahalom, M. Baer and A.M. Mebel "Some Experimental. and Calculational Consequences of Phases in Molecules with Multiple Conical Intersections " International Journal of Quantum Chemistry, 92, 135-151 (2003).
38) R. Englman & A. Yahalom, "Phase Evolution in a Multi-Component System", Physical Review A, 67, 5, 054103-054106 (2003). [Los-Alamos Archives -quant-ph/0406195]
39) R. Englman & A. Yahalom," Energy Density of a Dissipative Polarizable Solid by a Lagrangean Formalism", Physics Letters A, 314/5-6 , 367-373 (2003). [Los-Alamos Archives -physics/0406128]
40) A. Yahalom & R. Englman, "Phase-Modulus Relations for a Reflected Particle", J. Phys. Chem. A, *107* (37), 7170 - 7174 (2003). [Los-Alamos Archives -quant-ph/0406197]
41) T. Vertesi, A. Vibok, G. Halasz, A. Yahalom, R. Englman and M. Baer "The Electronic Non-Adiabatic Coupling Matrix: A Numerical Study of the Curl Condition and the Quantization Condition Employing the Mathieu Equation:" J. Phys. Chem. A, *107*(37), 7189 - 7196 (2003).
42) R. Englman & A. Yahalom, "Photo-Chemical Applications of Phase-Modulus Interdependencies" Israel Journal of Chemistry , 43, 339-346 (2003) (Published in 2004). [Los-Alamos Archives -physics/0406130]
43) R. Englman & A. Yahalom," A Variational Procedure for Time-Dependent Processes", Physical Review E, 69, 2, 026120-026129 (2004). [Los-Alamos Archives -physics/0406131]
44) A.Gover, A.Faingersh, A.Eliran, M.Volshonok, H.Kleinman, S.Wolowelsky, B.Kapilevich, Y.Lasser, Z.Seidov, M.Kanter, A.Zinigrad, M.Einat, Yu.Lurie, A.Abramovich, A.Yahalom, Y.Pinhasi, E.Weisman & J.Shiloh "Radiation Measurements in the New Tandem Accelerator FEL" Nuclear Instruments & Methods A 528/1-2 pp. 23-27 (2004).
45) Yosef Pinhasi,Yuri Lurie and Asher Yahalom, "Study of Radiation Spectrum in a Free-Electron Laser Oscillator from Noise to Saturation" Nuclear Instruments & Methods A 528/1-2 pp. 62-66 (2004).
46) R. Englman & A. Yahalom, "Generalized "Quasi-classical" Ground State of an Interacting Doublet" Physical Review B, 69, 22, 224302 (2004). [Los-Alamos Archives - cond-mat/0406725]
47) Y. Pinhasi, A. Yahalom, O. Harpaz & G. Vilner "Study of an Ultra Wideband Transmission in the Extremely High Frequency (EHF) Band" IEEE Transactions on Antennas and Propagation Vol. 52, No. 11, 2833-2842 (November 2004).
48) Y. Pinhasi, Yu. Lurie & A. Yahalom "Space-frequency model of ultra-wide-band interactions in free-electron lasers" Physical Reviw E, 71, 036503-1-8 (2005).
49) Asher Yahalom, Yosef Pinhasi, Yuri Lurie "Spectral and Variational Principles of Electromagnetic Field Excitation in Wave Guides" Physics Letters A, Volume 344, Issue 1, Pages 18-28 (29 August 2005). doi:10.1016/j.physleta.2005.06.054
50) Asher Yahalom & Yosef Pinhasi "Control of Wave Propagation in a Dielectric Medium by Tailoring its Dispersive Properties" J. Non-Cryst. Solids, Volume 351, issue 33-36, Pages 2922-2924 (15 September 2005). doi:10.1016/j.jnoncrysol.2005.06.023
51) Yosef Pinhasi & Asher Yahalom "Spectral Characteristics of Gaseous Media and Their Effects on Propagation of Ultra-Wideband Radiation in the Millimeter Wavelengths" J. Non-Cryst. Solids, Volume 351, issue 33-36, Pages 2925-2928 (15 September 2005). doi:10.1016/j.jnoncrysol.2005.05.042
52) Y. Socol, A. Gover, A. Eliran, M. Volshonok, Y. Pinhasi, B. Kapilevich, A. Yahalom, Y. Lurie, M. Kanter, M. Einat, & B. Litvak "Study of Coherence Limits and Chirp Control in Long Pulse Fel Oscillator" Physical Review Special Topics - Accelerators and Beams, 8, 080701 (2005).
(http://prst-ab.aps.org/abstract/PRSTAB/v8/i8/e080701)

53) Asher Yahalom & Robert Englman "Square-root method for the density matrix in Lindblad processes "Physica A, Vol 371/2 pp 368-386 (2006) doi:10.1016/j.physa.2006.03.036 . [Los-Alamos Archives cond-mat/0512474]
54) Asher Yahalom and Robert Englman "Conductance Phases in Aharonov-Bohm Ring Quantum Dots" Phys. Rev. B 74, 115328 (2006) (8 pages). DOI: 10.1103/PhysRevB.74.115328 [Los-Alamos Archives - cond-mat/0510689]
55) Robert Englman and Asher Yahalom "Vibronic Reduction Factors in $E \otimes (\beta_1 + \beta_2)$ and their Berry's Phase Manifestations" Journal of Molecular Structure **838** 24–26 (2007). doi:10.1016/j.molstruc.2006.12.048
56) Asher Yahalom and Robert Englman "Environment-effect on the Berry phase of a driven $G_{3/2} \otimes \varepsilon(t)$ system in a magnetic field by the square root method" Journal of Molecular Structure **838** 27–31 (2007). doi:10.1016/j.molstruc.2006.12.046
57) Robert Englman, Asher Yahalom & T. Vertesi "Unexpected phase-jumps upon cycling around a conical intersection" Journal of Molecular Structure **838** 20–23 (2007). doi:10.1016/j.molstruc.2006.12.063
58) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Free-Electron Lasers in the Absence of Feedback—Beyond the High Gain Approximation" IEEE Journal of Quantum Electronics, Vol. 43, No. 10, October (2007).
59) A. Yahalom, R. Englman and Y. Pinhasi "Covariant Formulation of the Dynamics in a Dissipative Quantum Dielectric Obtained from a Simplified Lagrangian". [Los-Alamos Archives - physics/0605060] Physics Letters A 372 2941–2948 (2008). http://dx.doi.org/10.1016/j.physleta.2008.01.028
60) Asher Yahalom "The Geometrical Meaning of Time" ["The Linear Stability of Lorentzian Space-Time" Los-Alamos Archives - gr-qc/0602034, gr-qc/0611124] Foundations of Physics http://dx.doi.org/10.1007/s10701-008-9215-3 Volume 38, Number 6, Pages 489-497 (June 2008).
61) Asher Yahalom and Donald Lynden-Bell "Simplified Variational Principles for Barotropic Magnetohydrodynamics" [Los-Alamos Archives - physics/0603128] Journal of Fluid Mechanics Volume 607 pages 235-265 (2008).
62) Asher Yahalom, "Stability of Radial Perturbations for Non-Uniformly Rotating Self-Gravitating, Finite, Gaseous Disks" Physics Letters A **373** pages 1170-1176 (2009) http://dx.doi.org/10.1016/j.physleta.2009.01.060.
63) A. Eliran, A. Gover, Y. Pinhasi, A. Yahalom, Y. Lurie & G. Pinhasi "Statistical Study of Undulator Radiated Power by a Classical Detection System in the Mm-Wave Regime" Physical Review. ST Accelerator & Beams 12, 050701 (2009). http://prst-ab.aps.org/abstract/PRSTAB/v12/i5/e050701
64) Yosef Pinhasi, Asher Yahalom and Gad A. Pinhasi "Ultra Short Pulse Propagation in Lossy Dielectric Media" J. Opt. Soc. Am. B 26, 2404-2413 (2009).
65) Asher Yahalom "The Gravitational Origin of the Distinction between Space and Time" International Journal of Modern Physics D, Vol. 18, Issue: 14, pp. 2155-2158 (2009). DOI: 10.1142/S0218271809016090
66) Yosef Pinhasi, Asher Yahalom and Gad A. Pinhasi "Propagation analysis of ultrashort pulses in resonant dielectric media" Virt. J. Ultrafast Sci., Volume 9, Issue 1, PHOTONICS, January 2010.
http://scitation.aip.org/getabs/servlet/GetabsServlet?prog=normal&id=VIRT050000090000010002050000001&idtype=cvips&gifs=yes&ref=no
67) Asher Yahalom "A Four Function Variational Principle for Barotropic Magnetohydrodynamics" EPL 89 (2010) 34005, doi: 10.1209/0295-5075/89/34005. [Los-Alamos Archives - arXiv:0811.2309].
68) Asher Yahalom "Gravity and the Complexity of Coordinates in Fisher Information" International Journal of Modern Physics D, Vol. 19, No. 14 (2010) 1–5, © World Scientific Publishing Company DOI: 10.1142/S0218271810018347.
69) Robert Englman & Asher Yahalom "Distributed Phase Acquisition in a Wave Function" EPL 93 (2011) 20001, doi: 10.1209/0295-5075/93/20001.
70) A. Yahalom, Y. Pinhasi, E. Shifman and S. Petnev "Transmission through Single and Multiple Layers in the 3-10 GHz Band and the Implications for Communications of Frequency Varying Material Dielectric Constants" WSEAS Transactions on Communications (ISSN: 1109-2742). Pages 759-772, Issue 12, Volume 9, December 2010.
71) Y. Pinhasi, A. Yahalom, G. A. Pinhasi and M. Lotock "Atmospheric Effects in Ultra Wideband Wireless Communications in the Extremely High Frequency (EHF) Band" WSEAS Transactions on Communications (ISSN: 1109-2742). Pages 773- 781, Issue 12, Volume 9, December 2010.
72) A. Yahalom, J. Levitan, M. Lewkowicz and L. Horwitz "Lyapunov vs. Geometrical Stability Analysis of the Kepler and the Restricted Three Body Problem" Physics Letters A, Volume 375, Issue 21, 23 May 2011, Pages 2111-2117. doi:10.1016/j.physleta.2011.04.016.
73) Moshe Einat & Asher Yahalom, "Induced Static Magnetic Field by a Cellular Phone" Appl. Phys. Lett. 99, 093503 (2011); doi:10.1063/1.3632081 (3 pages -Impact Factor 3.820)
74) H. S. Marks, M. Volshonok, E. Dyunin, A. Gover Y. Lasser, R. Shershevski and A. Yahalom "Virtual Field Synthesis Scheme for Improving a Linear Wiggler with Lateral Focusing" Nuclear Inst. and Methods in Physics Research, A 660 (2011) pp. 15-21. http://dx.doi.org/10.1016/j.nima.2011.09.004.
75) Ernestina Cianca, Tommaso Rossi, Asher Yahalom, Yosef Pinhasi, John Farserotu and Claudio Sacchi "EHF for Satellite Communications: the New Broadband Frontier" Proceedings of the IEEE, Volume: 99 Issue: 11, page(s): 1858 – 1881, ISSN: 0018-9219, 10.1109/JPROC.2011.2158765.
76) Asher Yahalom, "Stability in the Weak Variational Principle of Barotropic Flows and Implications for Self-Gravitating Discs". [Los-Alamos Archives - astro-ph/9501080] Monthly Notices of the Royal Astronomical Society 418, 401–426 (2011). doi:10.1111/j.1365-2966.2011.19492.x.
77) Lawrence Horwitz, Asher Yahalom, Meir Lewkowicz & Jacob Levitan, "Subtle is the Lord: On the difference between Newtonian (Lyapunov) stability analysis and geometrical stability analysis of gravitational orbits" the International Journal of Modern Physics D. International Journal of Modern Physics D, Vol. 20, No. 14 (2011) pp. 2787-2793, © World Scientific Publishing Company, DOI: 10.1142/S0218271811020639

78) Eliran Alon, Goldshleger Naftaly, Yahalom Asher and Ben-Dor Eyal "First results from a millimetre-wave measurement of soil moisture-content" Remote Sensing Letters, Vol. 3, No. 7, 10 December 2012, 639–645. ISSN 2150-704X (Print), 2150-7058 (Online). DOI:10.1080/01431161.2012.656768.
79) D. Ophir, A. Yahalom, G.A. Pinhasi and M. Kopylenko "A Combined Variational and Multi-Grid Approach for Fluid Dynamics Simulation" Proceedings of the ICE - Engineering and Computational Mechanics, Volume 165, Issue 1, 01 March 2012 , pages 3 –14 , ISSN: 1755-0777, E-ISSN: 1755-0785.
80) Moshe Einat and Asher Yahalom "The magnetic dipole moment of a cellular phone" Przegląd Elektrotechniczny (Electrical Review), ISSN 0033-2097, R. 88, Pg. 31, NR 5a/2012.
81) Y. Ditkovich, A. Kuperman, A. Yahalom and M. Byalsky "A Generalized Approach to Estimating Capacity Factor of Fixed Speed Wind Turbines" IEEE Transactions on Sustainable Energy, Volume: 3, Issue: 3, Page(s): 607- 608, Digital Object Identifier: 10.1109/TSTE.2012.2204538, 2012.
82) Robert Englman & Asher Yahalom, "Partial Phases in a Circling Electron" International Journal of Modern Physics B, 26, 1250145 (2012) [11 pages] DOI: 10.1142/S0217979212501457.
83) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor and Menachem Agassi "Empirical Model for Backscattering at Millimeter-Wave Frequency by Bare Soil Subsurface with Varied Moisture Content" Geoscience and Remote Sensing Letters, IEEE VolumPP , Issue: 99, Publication Year: 2013 , Page(s): 1 - 5.
84) Robert Englman & Asher Yahalom "Partial Decoherence and Thermalization through Time-Domain Ergodicity" Physical Review A, 87, 052123 (2013) (Impact Factor 2.878). DOI: 10.1103/PhysRevA.87.05212
85) J. Levitan, A. Yahalom, L. Horwitz, and M. Lewkowicz "On the stability of Hamiltonian systems with weakly time dependent potentials" Chaos: an Interdisciplinary Journal of Nonlinear Science, 23, 023122 (2013); doi: 10.1063/1.4808250 (Impact Factor 6).
86) S. Bondarenko, L. Horwitz, J. Levitan and A. Yahalom "On asymptotic solutions of RFT in zero transverse dimensions" Nuclear Physics A, Volume 912, 21 August 2013, Pages 49-65. http://dx.doi.org/10.1016/j.nuclphysa.2013.05.005.
87) Asher Yahalom "Aharonov - Bohm Effects in Magnetohydrodynamics" Physics Letters A. (Impact Factor 1.632). Available online 22 May 2013, http://dx.doi.org/10.1016/j.physleta.2013.05.037. Volume 377, Issues 31-33, 30 October 2013, Pages 1898-190
88) Y. Ditkovich, A. Kuperman, A. Yahalom and M. Byalsky "Site-Dependent Wind Turbine Performance Index" International Journal of Renewable Energy Research, Vol.3, No.3, p 592-594, 2013.
89) Asher Yahalom "Gravity and Faster than Light Particles" Journal of Modern Physics (JMP), Vol. 4 No. 10 PP. 1412-1416. DOI: 10.4236/jmp.2013.410169. Pub. Date: October 31, 2013
90) Yuri Ditkovich, Alon Kuperman, Asher Yahalom and Michael Byalsky "Alternative Approach to Wind Turbines Performance Index Assessment" ASCE's Journal of Energy Engineering. doi: 10.1061/(ASCE)EY.1943-7897.0000174, 06014001 (2014).
91) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Menachem Agassi and Eyal Ben-Dor "Measurement of soil moisture content under physical crust by millimetre-wave backscattering" The European Journal of Soil Science, p. 1-10, doi: 10.1111/ejss.12159 (2014).
92) Asher Yahalom and Donald Lynden-Bell "Variational Principles for Topological Barotropic Fluid Dynamics" ["Simplified Variational Principles for Barotropic Fluid Dynamics" Los-Alamos Archives - physics/ 0603162] Geophysical & Astrophysical Fluid Dynamics. DOI: 10.1080/03091929.2014.952725 (2014).
93) Miron Tuval & Asher Yahalom "Newton's Third Law in the Framework of Special Relativity" Eur. Phys. J. Plus (11 Nov 2014) 129: 240 DOI: 10.1140/epjp/i2014-14240-x. (arXiv:1302.2537 [physics.gen-ph]).
94) Asher Yahalom "On the Difference between Time and Space" Cosmology 2014, Vol. 18. 466-483. Cosmology.com.
95) Robert Englman & Asher Yahalom "Density Matrix Properties in a Time Averaged Formulation" Foundations of Physics © Springer Science + Business Media New York 2015. DOI 10.1007/s10701-015-9894-5, published online 14 April 2015, Volume 45, Issue 6, Page 673-690 (ArXiv: 1505.02073).
96) A. Yahalom, M. Lewkowicz, J. Levitan, G. Elgressy, L.P. Horwitz, and Y. Ben-Zion, "Uncertainty Relation for Chaos" International Journal of Geometric Methods in Modern Physics. DOI: 10.1142/S0219887815500930. Vol. 12 (2015) 1550093 (12 pages), © World Scientific Publishing Company.
97) Y. Strauss, L. P. Horwitz, J. Levitan and A. Yahalom "Quantum Field Theory of Classically Unstable Hamiltonian Dynamics" Journal of Mathematical Physics 56, 072701 (2015). (arXiv:1407.5263 [math-ph])
98) Nezah Balal, Eyal Magori & Asher Yahalom "Design of a Permanent Magnet Wiggler for a THz Free Electron Laser" Acta Physica Polonica A, Vol. 128 No. 3 page 259- 263 (2015).
99) Asher Yahalom "Simplified Variational Principles for non-Barotropic Magnetohydrodynamics". (arXiv: 1510.00637 [Plasma Physics]) J. Plasma Phys. (2016), vol. 82, 905820204 © Cambridge University Press 2016 doi:10.1017/S0022377816000222.
100) Michael Suleymanov and Asher Yahalom "Quantum Mechanics a God Less Theory". Cosmology 2016, Vol. 24. 516-532, Cosmology.com.
101) Asher Yahalom "Simplified Variational Principles for Stationary non-Barotropic Magnetohydrodynamics" International Journal of Mechanics, Volume 10, 2016, p. 336-341. ISSN: 1998-4448.
102) Asher Yahalom "Non-Barotropic Magnetohydrodynamics as a Five Function Field Theory". International Journal of Geometric Methods in Modern Physics, No. 10 (November 2016). Vol. 13 1650130 (13 pages) © World Scientific Publishing Company, DOI: 10.1142/S0219887816501309.
103) Miron Tuval and Asher Yahalom "Momentum Conservation in a Relativistic Engine" Plus. Eur. Phys. J. Plus (2016) 131: 374. DOI: 10.1140/epjp/i2016-16374-1

104) Horwitz, Lawrence; Yahalom, Asher; Levitan, Jacob and Lewkowicz, Meir “An Underlying Geometrical Manifold for Hamiltonian Mechanics”. (arXiv:1511.09185 [physics.class-ph]). Front. Phys. 12(1), 124501 (2017), DOI 10.1007/s11467-016-0610-5
105) Asher Yahalom “A Conserved Local Cross Helicity for Non-Barotropic MHD” (ArXiv 1605.02537). Pages 1-7, Journal of Geophysical & Astrophysical Fluid Dynamics. Published online: 25 Jan 2017. Vol. 111, No. 2, 131–137. http://dx.doi.org/10.1080/03091929.2017.1281410 .
106) Michael Suleymanov, Lawrence Horwitz and Asher Yahalom “Second quantization of a covariant relativistic space-time string in Steuckelberg–Horwitz–Piron theory” (arXiv: 1612.04193). Frontiers of Physics, First Online: 29 April 2017. 12(3), 121103 (2017). Pages 121103-1 - 121103-10 . DOI 10.1007/s11467-017-0666-x.
107) Asher Yahalom “Retardation in Special Relativity and the Design of a Relativistic Motor”. Acta Physica Polonica A, Vol. 131 (2017) No. 5, 1285-1288. DOI: 10.12693/APhysPolA.131.1285.
108) Asher Yahalom “Gravity, Stability and Cosmological Models”. International Journal of Modern Physics D. Published: 10 October 2017 issue (No. 12). https://doi.org/10.1142/S021827181717026X
109) Stela Aronov, Moshe Einat, Olga Furman, Moritz Pilossof, Konstantin Komoshvili, Roey Ben-Moshe, Asher Yahalom & Jacob Levitan “Millimeter-Wave Insertion Loss of Mice Skin”. Journal of Electromagnetic Waves and Applications. Pages 1-10 | Received 31 Jul 2017, Accepted 07 Nov 2017, Published online: 22 Nov 2017. https://doi.org/10.1080/09205071.2017.1404941 Pages 758-767, Volume 32, 2018 - Issue 6.
110) Asher Yahalom “Non-Barotropic Cross-helicity Conservation Applications in Magnetohydrodynamics and the Aharanov - Bohm effect" (arXiv:1703.08072 [physics.plasm-ph]). Fluid Dynamics Research, Volume 50, Number 1, 011406. https://doi.org/10.1088/1873-7005/aa6fc7 . Received 11 December 2016, Accepted Manuscript online 27 April 2017, Published 30 November 2017.
111) G. Weinstein, Y. Strauss, S. Bondarenko, A. Yahalom, M. Lewkowicz, L. P. Horwitz and J. Levitan “Entropy Measures as Geometrical Tools in the Study of Cosmology” (arXiv:1504.07855) Entropy, Pages 1-8, 2018, 20, 6; doi:10.3390/e20010006. Received: 20 October 2017; Accepted: 20 December 2017; Published: 25 December 2017.
112) Asher Yahalom "Editorial: Making Science that Really Explain Things". Journal of Physics & Astronomy, Vol: 5(4) 2017.
113) Asher Yahalom "A Simpler Variational Principle for Stationary non-Barotropic Ideal Magnetohydrodynamics". Chaotic Modeling and Simulation (CMSIM), 1: 19-33, 2018. Received: 15 October 2017 / Accepted: 28 December 2017.
114) A. Yahalom “The Fluid Dynamics of Spin”. (arXiv:1802.09331 [physics.flu-dyn]). Molecular Physics 2018, Vol. 116, Nos. 19–20, 2698–2708, Received 02 Feb 2018, accepted 15 Mar 2018, Published online: 13 Apr 2018. http://dx.doi.org/10.1080/00268976.2018.1457808
115) Ofir Flom, Asher Yahalom, Haggai Zilberberg, Lawrence Horwitz and Jacob Levitan “Tunneling as a Source for Quantum Chaos”. (arXiv:1507.04842 [quant-ph]). Quantum Information and Computation, Vol. 18, No. 3 & 4 (2019) 0222-0236 © Rinton Press. DOI: https://doi.org/10.26421/QIC19.3-4
116) Shailendra Rajput, Moshe Averbukh & Asher Yahalom "Electric power generation using a parallel-plate capacitor" Accepted: 19 February 2019. DOI: 10.1002/er.4492. International Journal of Energy Research, 2019; 1–9. wileyonlinelibrary.com/journal/er © 2019 John Wiley & Sons, Ltd.
117) Shoshani, Y. & Yahalom, A. "Apriorics and Structuralism" Found Sci (2019). https://doi.org/10.1007/s10699-019-09617-4. Online, 11 July 2019.
118) Yakov Abetbool, Shailendra Rajput, Asher Yahalom & Moshe Averbukh "Comprehensive Study on Dynamic Parameters of Symmetric and Asymmetric Ultracapacitors" Electronics 2019, 8(8), 891; https://doi.org/10.3390/electronics8080891.
119) Rajput, S.; Averbukh, M.; Yahalom, A.; Minav, T. An Approval of MPPT Based on PV Cell’s Simplified Equivalent Circuit During Fast-Shading Conditions. Electronics 2019, 8, 1060.

Refereed Conference Papers (since 2019)

120) Asher Yahalom "Dark Matter: Reality or a Relativistic Illusion?" Proceedings of Eighteenth Israeli - Russian Bi-National Workshop 2019 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials”. 17 - 22 February 2019, Ein Bokek, Israel.
121) S. Rajput and A. Yahalom, "Preliminary Magnetic Energy Considerations in a Relativistic Engine: Mutual Inductance vs. Kinetic Terms" 2018 IEEE International Conference on the Science of Electrical Engineering in Israel (ICSEE), Eilat, Israel, 2018, pp. 1-5. doi: 10.1109/ICSEE.2018.8646265
122) A. Yahalom, Y. Abitbul and M. Averbukh, "Preliminary Dynamic Parameters Comparison of Asymmetric (Ultimo CPQ 2300S, JSR Co.) and Double-Layer (BCAP3400, Maxwell Co.) Ultracapacitors" 2018 IEEE International Conference on the Science of Electrical Engineering in Israel (ICSEE), Eilat, Israel, 2018, pp. 1-4. doi: 10.1109/ICSEE.2018.8646064
123) A. Yahalom, T. Minav and M. Averbukh, "Modified approach for global MPP finding under partial shading" 2018 IEEE International Conference on the Science of Electrical Engineering in Israel (ICSEE), Eilat, Israel, 2018, pp. 1-5. doi: 10.1109/ICSEE.2018.8646301
124) Asher Yahalom "A New Diffeomorphism Symmetry Group of Non-Barotropic Magnetohydrodynamics" Proceedings of the 32nd International Colloquium on Group Theoretical Methods in Physics (Group32), Czech Technical University, Prague, Czech Republic, 9-13 July 2018. Journal of Physics: Conf. Series 1194 (2019) 012113, IOP Publishing doi:10.1088/1742-6596/1194/1/012113.
125) Asher Yahalom “The effect of Retardation on Galactic Rotation Curves” Proceedings of the International Association for Relativistic Dynamics (IARD), Mérida, Yucatán, Mexico. 4 - 7 June 2018. J. Phys.: Conf. Ser. 1239 (2019) 012006, IOP Publishing https://doi.org/10.1088/1742-6596/1239/1/012006.)