

Curriculum Vitae of

Dan M. Marom

• **Personal Details**

Full name: Dan Mark Marom
Date and place of birth: July 14, 1967 in Detroit, Michigan (U.S.A.)
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• **Higher Education**

B.Sc.: Mechanical Engineering (1985-1989)
Tel Aviv University
Magna Cum Laude (GPA: 88.58/100)
M.Sc.: Electrical Engineering (1991-1995)
Tel Aviv University
Magna Cum Laude (GPA: 94.24/100)
Thesis advisor: Prof. David Mendlovic
Thesis title: *Dynamic optical interconnections with multistage architectures*
Ph.D.: Electrical Engineering (1995-2000)
University of California, San Diego
(GPA: 4.0/4.0)
Thesis advisor: Prof. Yeshaiahu Fainman
Thesis title: *Femtosecond-rate optical signal processing with applications in ultrafast communications*

- **Appointments at the Hebrew University**

2017-present	Full Professor Hebrew University
2013-2017	Associate Professor Hebrew University
2005-2013	Senior Lecturer Hebrew University

- **Prior Employment History**

2000-2005	Member of the Technical Staff Advanced Photonics Research Department Bell Laboratories, Lucent Technologies
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- **Additional Functions/Tasks at the Hebrew University**

Chair, Applied Physics Department, October 2016-present.

Faculty Candidate Screening Committee, School of Engineering, 2014-2016.

Research Student Authority Member, Applied Physics representative, 2013-2016.

Graduate student advisor for Applied Physics Department, 2007-2013.

Curriculum committee for NanoScience program, 2011-2013.

- **Service in other Academic and Research Institutions**

On various instances, reviewed Doctoral Thesis from Tel Aviv University, Bar-Ilan University, and Ben-Gurion University.

On various instances, participated in Master's student committees from Technion, Tel Aviv University, Bar-Ilan University, and Ben-Gurion University.

- **Other Activities**

Elected to **Board of Governors of IEEE Photonics Society** for three year term (2017-2020).

Committee Chair for Israel Ministry of Science Engineering Grants, 2017.

Program Chair of Photonics Networks and Devices 2017, to be held with Advanced Photonics Congress in New Orleans.

Chair of Steering Committee of International Conference on Optical MEMS and Nanophotonics (OMN), 2017-2020. **Member of Steering Committee** of OMN conference since 2013.

General Co-Chair of Photonics in Switching (PS) 2016, co-located with OECC in Niigata, Japan. Will serve again in same capacity of **General Co-Chair** for PS 2017, to be held with Advanced Photonics Congress in New Orleans. Previously served as **Technical Co-Chair** for PS 2014, held in San Diego.

General Chair of Optical MEMS and Nanophotonics 2015, held at the Hebrew University, Jerusalem, August 2015.

Program Committee Member for Conference on Lasers and Electro-Optics: Europe (CLEO-Europe), 2015, 2017.

Program Committee Member for Optoelectronics and Communications Conference (OECC) 2014.

Technical Committee Member of iNNOVEX, 2014-2017.

IEEE Photonics Society Young Investigator Award Committee Member, 2013-2015.

Senior Editor of IEEE Photonics Technology Letters, one of two with responsibility for all device related submissions, 8/2013-12/2016. **Associate Editor** of IEEE Photonics Technology Letters, 2008-2013.

General Co-Chair of IEEE Optical MEMS 2004 conference, Japan, August 2004.

Program Committee Member for Optical Fiber Communications (OFC), 2006-08, 2014-2017.

Program Committee Member for Conference on Lasers and Electro-Optics (CLEO), 2007-2009.

Program Committee Member for the Annual Meeting of the Laser and Electro-Optics Society (LEOS), 2008-2010.

Program Committee Member for Frontiers in Optics (FiO, formerly the Annual Meeting of the Optical Society of America), 2008-2013.

Program Committee Member for Optical MEMS, 2004-2006, 2013-present

Committee Member for ISF awards in optics 2009, 2013.

Reviewer for OSA journals (Optica, Optics Letters, Optics Express, Journal of the Optical Society of America, Applied Optics), IEEE journals (Journal of Lightwave Technology, Photonics Technology Letters, Journal of Optical Communications and Networking), Science Group (Light: Science and Application), and SPIE (Optical Engineering).

- **Awards, Citations, Honors, Fellowships**

2015: *Fellow*, Optical Society of America

2014, 2015: *Photonics Society Distinguished Lecturer Award*

2008: *Senior Member*, IEEE Photonics Society

2006: *Peter Brojde Excellence in Engineering Award*

2006: *Golda Meir Fellowship*

1999: *Best Student Paper Award* of LEOS Annual Meeting.

1996-2000: *Fannie and John Hertz Foundation Fellow*

1995-1996: *Powell Foundation Fellowship*

- **Peer-reviewed Publications in the last ten years:**

1. D. M. Marom, "Enabling Devices using MicroElectroMechanical System (MEMS) Technology for Optical Networking," *Adv. Sci. and Technol.* 55, 145-149, 2008.
2. D. Sinefeld and D. M. Marom, "Hybrid Guided-Wave/Free-Space Optics Photonic Spectral Processor Based on LCoS Phase Only Modulator," *Photon. Technol. Lett.* 22(7), 510-512, 2010.
3. D. Sinefeld and D. M. Marom, "Insertion Loss and Crosstalk Analysis of a Fiber Switch based on a Pixelized Phase Modulator," *IEEE J. Lightwave Technol.* 29(1), 69-77, 2011.
4. D. Sinefeld, S. Ben-Ezra, C. R. Doerr, and D. M. Marom, "All-channel tunable optical dispersion compensator based on linear translation of a waveguide grating router," *Opt. Lett.* 36(8), 1410-2, 2011.
5. D. Shayovitz and D. M. Marom, "High-resolution, background-free, time-to-space conversion by collinearly phase-matched sum-frequency generation," *Opt. Lett.* 36(11), 1957-9, 2011.
6. D. Sinefeld, C. R. Doerr, and D. M. Marom, "Photonic Spectral Processor Employing Two-Dimensional WDM Channel Separation and a Phase LCoS Modulator" *Opt. Express* 19(15), 14532-41, 2011.
7. Y. Fattal, A. Rudnick, and D. M. Marom, "Soliton shedding from Airy pulses in Kerr media," *Opt. Express* 19(18), 17298-307, 2011.
8. A. Rudnick and D. M. Marom, "Airy-Soliton Interactions in Kerr Media," *Opt. Express.* 19(25), 25570-25582, 2011.
9. D. Sinefeld and D. M. Marom, "Tunable Fiber Ring Laser with an Intra-Cavity High Resolution Filter Employing Two-Dimensional Dispersion and LCoS Modulator," *Opt. Lett.* 37, 1-3, 2012.
10. D. Sinefeld, Y. Fattal, and D. M. Marom, "Generation of WDM adaptive-rate pulse bursts by cascading narrow/wideband tunable optical dispersion compensators," *Opt. Lett.* 37, 4290-92, 2012.
11. M. Blau and D. M. Marom, "Optimization of Spatial Aperture-Sampled Mode Multiplexer for a Three-Mode Fiber," *Photon. Technol. Lett.* 24(23), 2101-04, 2012.
12. D. Shayovitz, H. Herrmann, W. Sohler, R. Ricken, C. Silberhorn, and D. M. Marom, "High resolution time-to-space conversion of sub-picosecond pulses at 1.55 μ m by non-degenerate SFG in PPLN crystal," *Opt. Express.* 20(24), 27388-395, 2012.
13. Y. Lior and Dan M. Marom, "Effective permittivity and third-order nonlinear susceptibility for a dilute composite consisting of partially aligned nanorods," *J. Opt. Soc. Am. B* 30(7), 1864-71, 2013.
14. Y. Dunayevsky and D. M. Marom, "MEMS spatial light modulator for phase and amplitude modulation of spectrally dispersed light," *IEEE J. Microelectromech. Syst.* 22(5), 1213-21, 2013.

15. D. Sinefeld, S. Ben-Ezra, and D. M. Marom, “Nyquist-WDM filter shaping with a high-resolution colorless photonic spectral processor,” *Opt. Lett.* 38(17), 3268–71, 2013.
16. D. Shayovitz, H. Herrmann, W. Sohler, R. Ricken, C. Silberhorn, and D. M. Marom, “Time-to-space conversion of ultrafast waveforms at 1.55 μm in a planar periodically poled lithium niobate waveguide,” *Opt. Lett.* 38(22), pp. 4708–11, 2013.
17. L. E. Nelson, M. D. Feuer, K. Abedin, X. Zhou, T. F. Taunay, J. M. Fini, B. Zhu, R. Isaac, R. Harel, G. Cohen, and D. M. Marom, “Spatial Superchannel Routing in a Two-Span ROADM System for Space Division Multiplexing,” *IEEE J. Lightwave Technol.* 32(4), 783-789, 2014.
18. D. Sinefeld, D. Shayovitz, O. Golani, and D. M. Marom, “Tunable WDM sampling pulse streams using a spatial phase modulator in a biased pulse shaper,” *Opt. Lett.* 39(3), 642-645, 2014.
19. A. Agmon, M. Nazarathy, D. M. Marom, S. Ben-Ezra, A. Tolmachev, R. Killey, P. Bayvel, L. Meder, M. Hübner, W. Meredith, G. Vickers, P. C. Schindler, R. Schmogrow, D. Hillerkuss, W. Freude, C. Koos, and J. Leuthold, “OFDM/WDM PON with Laserless, Colorless 1 Gb/s ONUs Based on Si-PIC and Slow IC,” *IEEE J. Opt. Commun. Netw.* 6(3), 225-237, 2014.
20. O. Golani, L. Mauri, F. Pasinato, C. Cattaneo, G. Consonni, S. Balsamo, and D. M. Marom, “A photonic analog-to-digital converter using phase modulation and self-coherent detection with spatial oversampling,” *Opt. Express.* 22(10), 12273- 12282, 2014.
21. D. Shayovitz, H. Herrmann, W. Sohler, R. Ricken, C. Silberhorn, and D. M. Marom, “Full-field reconstruction of ultrashort waveforms by time to space conversion interferogram analysis,” *Opt. Express.* 22(17), 20205-20213, 2014.
22. M. Blau, I. Weiss, J. Gerufi, D. Sinefeld, M. Bin-Nun, R. Lingle, L. Grüner-Nielsen, and D. M. Marom, “Variable optical attenuator and dynamic mode group equalizer for few mode fibers,” *Opt. Express.* 22(25), 30520-30527, 2014.
23. D. Shayovitz, H. Herrmann, W. Sohler, R. Ricken, C. Silberhorn, and D. M. Marom, “Real-time coherent detection of phase modulated ultrashort pulses after time-to-space conversion and spatial demultiplexing,” *Opt. Express.* 22(25), 31138-31145, 2014.
24. D. M. Marom, J. Dunayevsky, D. Sinefeld, M. Blau, R. Ryf, N. K. Fontaine, M. Montoliu, S. Randel, C. Liu, B. Ercan, M. Esmaelpour, S. Chandrasekhar, A. H. Gnauck, S. G. Leon-Saval, J. Bland-Hawthorn, J. R. Salazar-Gil, Y. Sun, L. Grüner-Nielsen, and R. Lingle, Jr., “Wavelength-selective switch with direct few mode fiber integration,” *Opt. Express.* 23(5), 5723-5737, 2015.
25. S. Sygletos, S. Fabbri, E. Giacomidis, M. Sorokina, D. M. Marom, M.F.C. Stephens, D. Klonidis, I. Tomkos, and A. D. Ellis, “Numerical investigation of all-optical add-drop multiplexing for spectrally overlapping OFDM signals,” *Opt. Express.* 23(5), 5888-97, 2015.
26. D. M. Marom and M. Blau, “Switching Solutions for WDM-SDM Optical Networks,” *IEEE Commun. Mag.* 53(2), 60-68, 2015.

27. P. S. Khodashenas, J. M. Rivas-Moscoso, M. B. Shariati, D. M. Marom, D. Klonidis, and I. Tomkos, "Investigation of Spectrum Granularity for Performance Optimization of Flexible Nyquist-WDM-Based Optical Networks," *IEEE J. Lightwave Technol.* 33(23), 4767-4774, 2015.
28. M. Blau and D. M. Marom, "Spatial Aperture-Sampled Mode Multiplexer Extended to Higher Mode Count Fibers," *IEEE J. Lightwave Technol.* 33(23), 4805-14, 2015.
29. N. Goldshtein, D. Sinefeld, O. Golani, R. Rudnick, L. Pascar, R. Zektzer, and D. M. Marom, "Fine resolution Photonic Spectral Processor Using a Waveguide Grating Router with Permanent Phase Trimming," *IEEE J. Lightwave Technol.* 34(2), 379-385, 2016.
30. M. Song, E. Pincemin, A. Josten, B. Baeuerle, D. Hillerkuss, J. Leuthold, R. Rudnick, D. M. Marom, S. Ben Ezra, J. F. Ferran, G. Thouenon, P. S. Khodashenas, J. M. Rivas-Moscoso, C. Betoule, D. Klonidis, and I. Tomkos, "Flexible Optical Cross-Connects for High Bit Rate Elastic Photonic Transport Networks," *J. Opt. Commun. Netw.* 8(7), A126-A140 (2016).
31. D. M. Marom, P. D. Colbourne, A. D'Errico, N. K. Fontaine, Y. Ikuma, R. Proietti, L. Zong, J. M. Rivas-Moscoso, and I. Tomkos, "Survey of Photonic Switching Architectures and Technologies in Support of Spatially and Spectrally Flexible Optical Networking," *J. Opt. Commun. Netw.* 9(1), 1-26, 2017.
Featured in *OSA Spotlight on Optics, December 2016*, by Franko Küppers.
32. R. Rudnick, A. Tolmachev, D. Sinefeld, O. Golani, S. Ben-Ezra, M. Nazarathy, and D. M. Marom, "Sub-GHz Resolution Photonic Spectral Processor and its System Applications," *J. Lightwave Technol.* 35(11), 2218-2226, 2017.
33. B. Shariati, J. M. Rivas-Moscoso, D. M. Marom, S. Ben-Ezra, D. Klonidis, L. Velasco, and I. Tomkos, "Impact of Spatial and Spectral Granularity on the Performance of SDM Networks Based on Spatial Superchannel Switching," *J. Lightwave Technol.* 35(13), 2559-2568, 2017.