

# Netzer Moriya

siOnet Ltd. Applied Modeling Research  
Beit-Lumir Building  
Herzeliya, Israel 4673322  
Correspondance:  
P.O.B 1483, Ramat Hasharon, 4711401

Phone: (972) 9-9956-9893  
Fax: (972) 9-957-5336  
Email: *netzer@moriya.co.il*

## Personal

Born on August 10, 1960.

Israeli Citizenship.

Residence: 6 Yair St., Ramat Hasharon, Israel.

Cell: (972)-523-202620

## Education

1987 - 1991: Ph.D. studies at the Physics department, Technion,  
Institute of Technology, Haifa, Israel.

Thesis Title: "**Radiation Damage Annealing in In/Cd Implantation  
into III-V Group Semiconductors**".

Advisors: Prof. R. Kalish.

1985 - 1987: M.Sc. degree in Physics at the Physics department, Technion  
Institute of Technology, Haifa, Israel.

Thesis Title: "**Blurring the boundary between Si and a  
deposited layer by ion implantation**".

Advisor: Prof. R. Kalish

1981 - 1984: B.Sc. degree in Physics at the Physics department, Technion  
Institute of Technology, Haifa, Israel.

## Employment

2003 - Present: Founder and CEO of siOnet Ltd.- Applied Modeling Reseach.

The company specializes in Optimization Algorithms in Applied Physics,  
Applied Mathematics and AI technologies on Large-Scale Databasing  
Structures.

1996 - 2002: Founder and CEO of Netmor Ltd., Hod-Hasharon, Israel.

The company has developed new technologies for *6DOF* Positioning  
sensing for movement tracking systems for Medical and In-door  
Entertainment applications.

During the final development phase the company has obtained a full  
wireless, multi-sensors system with a unique and innovative – Patent  
Protected – working product.

The company has raised a capital of over 10 Million USD including a strategic investment from a leading Japanese IT company.

- 1992 - 1995: A Member of Technical Staff (MTS) at *AT&T* Bell Laboratories, Murray Hill N.J., U.S.A. (Dept. BL111270).  
Main research fields are related to atomic diffusion, electrical activity of Atomic Doping configurations in  $Si_{1-x}Ge_x$  strained layers and selected issues in the area of polycrystalline material/oxide interfaces and process control research defined by MOS ULSI guidelines. Major technical responsibility for the 2.0 MeV Van-De-Graff accelerator in Murray Hill NJ.
- 1991 - 1992: Post-Doc. at *AT&T* Bell Laboratories, Murray Hill N.J., U.S.A. (Dept. BL111270) under the supervision of Dr. L.C. Feldman. Main research fields related to atomic diffusion and electrical activity of dopants in  $Si_{1-x}Ge_x$  strained layers.
- 1988 - 1989: Conducted a research collaboration between *National Semiconductors Ltd.* (Israel) and the Technion on the subject: "*Structural Modification of Spin-On-Glass Materials*".
- 1985 - 1991: Teaching assistant in mechanics, electricity, optics, nuclear and solid-state physics, at the physics department, Technion, Haifa.
- 1984: Work at Philips Lamp Laboratories in Eindhoven, The Netherlands, participating in a student exchange program.

## Detailed List of Scientific and Technical Contributions

### Refereed Journals Publications

- [1] N. Moriya, R. Kalish, and G. Bahir. Retardation of implantation damage annealing in *InP* due to local nonstoichiometry. *J. Appl. Phys.*, 67:2157, 1990.
- [2] N. Moriya, Y. Shacham-Diamand, and R. Kalish. Large increase of refractive index and compactness in siloxane-type *Spin-On-Glass* induced by ion implantation. *Appl. Phys. Lett.*, 57:108, 1990.
- [3] N. Moriya. A new smoothing algorithm for statistical noise reduction. *Nucl. Inst. and Methods*, B53:208, 1991.
- [4] Y. Shacham-Diamand, N. Moriya, and G. Bahir. Electronic properties of *Metal/Sol-Gel/InP* capacitor. *Appl. Phys. Lett.*, 58:1314, 1991.
- [5] W. Pfeiffer, M. Deicher, R. Keller, R. Magerle, E. Recknagle, H. Skudlik, Th. Wichert, H. Wolf, D. Forkel, N. Moriya, and R. Kalish. *Cd-H* pairs in *GaAs*: Identification and stability. *Appl. Phys. Lett.*, 58:1751, 1991.
- [6] W. Pfeiffer, M. Deicher, R. Keller, R. Magerle, P. Pross, H. Skudlik, Th. Wichert, H. Wolf, D. Forkel, N. Moriya, and R. Kalish. Characterization of *Cd* implanted and annealed *GaAs* and *InP* by perturbed angular correlation (*PAC*) spectroscopy. *Appl. Surf. Sci.*, 50:154, 1991.
- [7] Y. Shacham-Diamand, E. Finkman, Y. Pinkas, and N. Moriya. Study of the changes in the infrared transmission of  $SiO_2$  *Spin-On-Glass* due to ion implantation. *Appl. Phys. Lett.*, 59:2953, 1991.

- [8] W. Pfeiffer, M. Deicher, R. Kalish, R. Keller, R. Magerle, N. Moriya, P. Pross, H. Skudlik, Th. Wichert, and H. Wolf. Annealing of damage in *GaAs* and *InP* after implantation of *Cd* and *In*. *Mat. Sci. Forum*, 83-87:1481, 1992.
- [9] N. Moriya, L. C. Feldman, H. S. Luftman, C. A. King, J. Bevk, and B. Freer. Boron diffusion in strained  $Si_{1-x}Ge_x$  epitaxial layers. *Phys. Rev. Lett.*, 71:883, 1993.
- [10] A. Katz, A. El-Roy, A. Feingold, M. Geva, N. Moriya, S.J. Pearton, E. Lane, T. Keel, and C.R. Abernathy. *W(Zn)* selectively deposited and locally diffused ohmic contacts to *P-InGaAs/In* formed by rapid thermal low pressure metalorganic chemical vapor deposition. *Appl. Phys. Lett.*, 62:2652, 1993.
- [11] N. Moriya, I. Brener, R. Kalish, W. Pfeiffer, M. Deicher, R. Keller, M. Mggerle, E. Recknagel, H. Skudlik, Th. Wichert, H. Wolf, and *ISOLDE* Collaboration. Annealing of *Cd*-implanted *GaAs*: Defect removal, lattice site occupation, and electrical activation. *J. Appl. Phys.*, 73:4248, 1993.
- [12] D.J. Eaglesham, A.E. White, L.C. Feldman, N. Moriya, and D.C. Jacobson. Equilibrium shape of *Si*. *Phys. Rev. Lett.*, 70:1643, 1993.
- [13] N. Moriya, Y. Shacham-Diamand, and R. Kalish. Modification effects in ion implanted  $SiO_2$  *Spin-On-Glass*. *J. Electrochem. Soc.*, 140:1442, 1993.
- [14] A. Katz, A. Feingold, N. Moriya, S. Nakahara, C.R. Abernathy, S.J. Pearton, and A. El-Roy. Growth of *InP* epitaxial layers by rapid thermal low pressure metalorganic chemical vapor deposition, using tertiarybutylphosphine. *Appl. Phys. Lett.*, 63:2958, 1993.
- [15] A. Katz, A. Feingold, A. El-Roy, N. Moriya, S.J. Pearton, A. Rusby, J. Kovalchick, C.R. Abernathy, M. Geva, and E. Lane. Rapid thermal low pressure metalorganic chemical vapor deposition of local diffused *W(Zn)* contacts. *Semicond. Sci. and Technol.*, 8:1445, 1993.
- [16] A. Katz, A. Feingold, S.J. Pearton, N. Moriya, C.R. Abernathy, F.A. Baiocchi, and M. Geva. Low temperature rapid thermal low pressure metalorganic chemical vapor deposition of *Zn* doped *InP* layers using tertiarybutylphosphine. *Appl. Phys. Lett.*, 63:2546, 1993.
- [17] L. Manchanda, G.R. Weber, Y.O. Kim, L.C. Feldman, N. Moriya, B.E. Weir, R.C. Kistler, M.L. Green, and D. Brasen. A new method to fabricate thin oxynitride/oxide gate dielectric for deep submicron devices. *Microelectronic Engineering*, 22(1-4):69, 1993.
- [18] A. Katz, A. Feingold, N. Moriya, M. Geva, F.A. Baiocchi, L.C. Luther, and E. Lane. Rapid thermal low pressure metalorganic chemical vapor deposition of  $In_{0.53}Ga_{0.47}As$  films using tertiarybutylarsine. *Appl. Phys. Lett.*, 63:2679, 1993.
- [19] D.J. Eaglesham, A.E. White, L.C. Feldman, N. Moriya, and D.C. Jacobson. Equilibrium shape of *Si* (**Erratum a**). *Phys. Rev. Lett.*, 72:1392, 1994.
- [20] N. Moriya, L.C. Feldman, H.S. Luftman, and C.A. King. Electrical and structural characterization of boron doped  $Si_{1-x}Ge_x$  strained layers. *J. Vac. Sci. and Technol.*, B12:383, 1994.
- [21] B. Miller, R. Kalish, L.C. Feldman, A. Katz, N. Moriya, K. Short, and A.E. White. Patterned electrical conductance and electrode formation in ion-implanted diamond films. *J. Electrochem. Soc.*, 141:L41, 1994.
- [22] D.J. Eaglesham, A.E. White, L.C. Feldman, N. Moriya, and D.C. Jacobson. Equilibrium shape of *Si* (**Erratum b**). *Phys. Rev. Lett.*, 72:2974, 1994.
- [23] N. Moriya, L. C. Feldman, S. W. Downey, C. A. King, and A. B. Emerson. Interfacial segregation in strained heterostructures: Boron in  $Si_{0.8}Ge_{0.2}$ . *Phys. Rev. Lett.*, 77:1981, 1995.
- [24] S.W. Downey, A.B. Emerson, G.E. Georgiou, J. Bevk, R.C. Kistler, N. Moriya, D.C. Jacobson, and M.L. Wise. Depth profiling of dopants in thin gate oxides in complementary metal-oxide-

semiconductor structures by resonance ionization mass spectrometry. *J. Vac. Sci. and Technol.*, B13:167, 1995.

- [25] M. Passlack, E.F. Schubert, W.S. Hobson, M. Hong, N. Moriya, S.N.G. Chu, K. Konstadinidis, J.P. Mannaerts, M.L. Schnoes, and G.J. Zydzik.  $Ga_2O_3$  films for electronic and optoelectronic applications. *J. Appl. Phys.*, 77:686, 1995.
- [26] M. Passlack, M. Hong, E.F. Schubert, J.R. Kwo, J.P. Mannaerts, S.N.G. Chu, N. Moriya, and F.A. Thiel. In-situ fabricated  $Ga_2O_3$ - $GaAs$  structures with low interface recombination velocity. *Appl. Phys. Lett.*, 66:625, 1995.
- [27] M. Hong, M. Passlack, J.P. Mannaerts, J. Kwo, S.N.G. Chu, N. Moriya, S.Y. Hou, and V. J. Fratello. Low interface state density oxide-gaas structures fabricated by in-situ molecular beam epitaxy. *J. Vac. Sci. and Technol.*, B14:2297, 1996.
- [28] M.L. Wise, N. Moriya, and S.W. Downey. Factors affecting the quantification of boron in  $SiO_2$  and  $Si$  by spattered neutral mass-spectrometry. *Surf. Inter. Anal.*, 24:371, 1996.
- [29] M. Passlack, M. Hong, J.P. Mannaerts, R.L. Opila, S.N.G. Chu, N. Moriya, F. Ren, and J.R. Kwo. Low  $D_{it}$  thermodynamically stable  $Ga_2O_3$ - $GaAs$  interfaces: Fabrication, characterization and modeling. *IEEE Trans. Elect. Dev.*, 44:214, 1997.
- [30] C. Saguy, C. Cytermann, B. Fizegeer, V. Richter, Y. Avigal, N. Moriya, R. Kalish, B. Mathieu, and A. Deneuville. Diffusion of hydrogen in undoped,  $p$ -type and  $n$ -type doped diamonds. *Diamond and Related Materials*, 12:623, 2003.
- [31] N. Moriya. On high-order discrete derivatives of stochastic variables. *Applied Mathematical Modelling*, 30(9):816, 2006.
- [32] N. Moriya. Noise-level determination for discrete spectra with *Gaussian* or *Lorentzian* probability density functions. *Nuclear Instruments and Methods in Physics Research A*, 618(1-3):306, 2010.
- [33] D. A. Hunter, C. Melton, S. Leshin, A. Wong, M. Clark, J. Kamienski, N. Moriya, B. Packwood, B. Birket, W. Edwards, M. Millward, and I. Wheelband. Wide-field imaging of the environments of *LITTLE THINGS* dwarf irregular galaxies. *The Astrophysical Journal*, 852:114, 2018.
- [34] C. Lejoly, W. Harris, N. Samarasinha, B.E.A. Mueller, E. Howell, J. Bodnarik, A. Springmann, T. Kareta, B. Sharkey, J. Noonan, L.R. Bedin, J.-G. Bosch, A. Brosio, E. Bryssinck, J.-B. de Vanssay, F.-J. Hamsch, O. Ivanova, V. Krushinsky, Z.-Y. Lin, F. Manzini, A. Maury, N. Moriya, P. Ochner, and V. Oldani. Radial distribution of the dust comae of comets *45P/Honda-Mrkos-Pajduskova* and *46P/Wirtanen*. *The Planetary Science Journal*, 3:17:15, 2022.

## Refereed Conference Proceedings Publications

- [35] N. Moriya, R. Kalish, R. Brenner, and V. Richter. Effects of  $Si$  implantation in  $Sb$ -silica spin-on layers. In *Mat. Res. Soc. Symp. Proc.*, volume 105, page 97. MRS, 1988.
- [36] Y. Shacham-Diamand, N. Moriya, and R. Kalish. Ion-implantation effects on spin-on-glass (*Sol-Gel*)  $SiO_2$  films. In *Mat. Res. Soc. Symp. Proc.*, volume 180, page 703. MRS, 1990.
- [37] W. Pfeiffer, M. Deicher, R. Keller, R. Magerle, P. Pross, H. Skudlik, Th. Wichert, H. Wolf, D. Forkel, N. Moriya, and R. Kalish. Characterization of  $cd$  implanted and annealed  $GaAs$  and  $InP$  by perturbed angular correlation (*PAC*) spectroscopy. In *E-Mat. Res. Soc. Symp. Proc.*, *Strasburg*, page 2. E-MRS, 1990.

- [38] W. Pfeiffer, M. Deicher, R. Kalish, R. Keller, R. Magerle, N. Moriya, P. Pross, H. Skudlik, Th. Wichert, and H. Wolf. Annealing of damage in *GaAs* and *InP* after implantation of *Cd* and *In*. In *Mater. Sci. Forum 83-87 (1992), Proc. Int. Conf. Defects Semicond., 16th, 1991*, volume 83-87 Pt. 3, page 2, 1992.
- [39] N. Moriya, M. Manfred, R. Kalish, R. Keller, R. Magerle, W. Pfeiffer, P. Poss, H. Skudlik, Th. Wichert, and H. Wolf. Passivating complexes in *Cd* doped *GaAs* and *InP*: Microscopic properties and electrical effects. In *Mat. Res. Soc. Symp. Proc.*, volume 262, page 431. MRS, 1992.
- [40] A. Katz, A. El-Roy, A. Feingold, T. Keel, M. Geva, N. Moriya, S.J. Pearton, E. Lane, and C.R. Abernathy. *RT-LPMOCVD* of *W*-Based self-aligned diffusion contacts to *InP* and related materials. In *Mat. Res. Soc. Symp. Proc.* MRS, 1992.
- [41] Katz, A. Feingold, S.J. Pearton, E. Lane, N. Moriya, and M. Geva. *W*-Based *RTLPCVD* ohmic contacts to *InP* formed by and integrated process. In *Electrochemical Society Meeting, Toronto*, volume SOTAPOCS XVII, 1992.
- [42] N. Moriya, C.A. King, L.C. Feldman, H.S. Luftman, M.L. Green, J. Bevk, and B.E. Weir. Boron diffusion in  $Si_{1-x}Ge_x$  strained layers. In *Mat. Res. Soc. Symp. Proc.*, volume 281, page 427. MRS, 1993.
- [43] N. Moriya, L.C. Feldman, H.S. Luftman, and C.A. King. Electrical and structural characterization of boron doped  $Si_{1-x}Ge_x$  strained layers. In *The Second International Workshop on the Measurement and Characterization of Ultra-Shallow Doping Profiles in Semiconductors, Proc.*, volume II, page 359, 1993.
- [44] A. Katz, A. Feingold, A. El-Roy, N. Moriya, S.J. Pearton, A. Rusby, J. Kovalchick, C.R. Abernathy, M. Geva, and E. Lane. Another step in developing a single wafer integrated process: Rapid thermal low pressure metalorganic chemical vapor deposition of local diffused *W*(*Zn*) contacts. In *Mat. Res. Soc. Symp. Proc.*, volume 282, page 217. MRS, 1993.
- [45] L. Manchanda, G.R. Weber, Y.O. Kim, L.C. Feldman, N. Moriya, B.E. Weir, R.C. Kistler, M.L. Green, and D. Brasen. A new method to fabricate thin oxynitride/oxide gate dielectric for deep submicron devices. In *Films on Semiconductors Conf., The Netherlands*, volume 6, page 2, 1993.
- [46] L. Manchanda, G.R. Weber, W. Mansfield, D.M. Boulin, K. Krisch, Y.O. Kim, R. Storz, N. Moriya, H.S. Luftman, L.C. Feldman, M.L. Green, R.C. Kistler, J.T.C. Lee, and F. Klemens. A boron-retarding and high interface quality thin gate dielectric for deep-submicron *CMOS* devices. In *Electron Devices Meeting*, volume 5-6, page 459. Technical Digest., International, 1993.
- [47] D. Brasen, L.C. Feldman, M.L. Green, K. Krisch, W. Lennard, W.-C. Liang, L. Manchanda, N. Moriya, H. Nussbaumer, H. Tang, G. Weber, and B.E. Weir. Determination of nitrogen in  $N_2O$ -grown oxynitride films by a nuclear reaction technique. In *24'th Semiconductors Interface Specialists Conf., Bonaventure, Ft. Lauderdale, FL*, volume 12, page 8, 1993.
- [48] M. Passlack, M. Hong, E.F. Schubert, J.P. Mannaerts, W.S. Hobson, N. Moriya, J. Lopata, and G.J. Zydzik.  $Ga_2O_3$  films for electronic and optoelectronic applications. In *21'st International Symposium on Compound Semiconductors*, 1994.
- [49] J. Bevk, Furtsch M, H.-J. Gossmann, N. Moriya, L.C. Feldman, R.-H. Yan, Y. Kim, and H.S. Luftman. Suppression of oxidation enhanced diffusion in *Si* via germanium incorporation. In *Mat. Res. Soc. Symp. Proc.* MRS, 1995.
- [50] J. Bevk, Furtsch M, N. Moriya, L.C. Feldman, G.E. Georgiou, K.S. Krisch, R.C. Kistler, D.M.

- Boulin, and L. Manchanda. Study of poly depletion effect in *MOS* structures with boron-doped polysilicon gate electrodes. In *Mat. Res. Soc. Symp. Proc.* MRS, 1995.
- [51] M. Furtusch, J. Bevk, J.D. Bude, S.W. Downey, K.S. Krisch, N. Moriya, P. Silverman, and H. Luftman. Comparative study of experimental techniques for boron profiling at poly-*Si/SiO<sub>2</sub>* interface. In *Mat. Res. Soc. Symp. Proc.*, volume 378, page 857. MRS, 1995.
- [52] M. Passlack, M. Hong, E.F. Schubert, J.P. Mannaerts, W.S. Hobson, N. Moriya, J. Lopata, and G.J. Zydzik. *Ga<sub>2</sub>O<sub>3</sub>* films for insulator/III-V semiconductor interfaces. In *Proceedings of the Symposium on Compound Semiconductors*, volume 141, page 597, 1995.
- [53] M. Passlack, M. Hong, J.P. Mannaerts, S.N.G. Chu, R.L. Opila, and N. Moriya. In-situ *Ga<sub>2</sub>O<sub>3</sub>* process for *GaAs* inversion/accumulation device and surface passivation applications. In *Proceedings of IEDM IEEE Tech. Dig. - Int. Electron Devices Meeting*, volume 141, page 383, 1995.
- [54] A. Plotkin, E. Paperno, and N. Moriya. Relationship between the measurement and motion bandwidths in magnetic tracking. In *Proceedings of the IEEE Conference IMTC/2006, Sorrento, Italia*, volume 6121, page 2165, 2006.
- [55] N. Moriya. Non-stationary noise estimation in adaptive linear and extended kalman filtering. *Proceedings of the 2'nd IC-EpsMsO Conference 2007, Athens, Greece, 4-7 July, on the Experiments Process System Modeling Simulation and Optimization*, (65), 2007.

## Books

- [56] N. Moriya. *Illusive Ties - "העיוני עניבה"*. Astrolog, (written in Hebrew), 2007.
- [57] N. Moriya. *Noise-Related Multivariate Optimal Joint-Analysis in Longitudinal Stochastic Processes*. Chapter 6 in *Progress in Applied Mathematical Modeling*, ed. Fengshan Yang, Nova Science Publishers, Inc., ISBN: 978-1-60021-976-4, 2008.
- [58] N. Moriya. *Primer to Kalman Filtering: A Physicist Perspective*. Nova Science Publishers, Inc., ISBN: 978-1-61668-311-5.

## List of Granted Patents

- [59] W.C. Dauteremont-Smith, L.C. Feldman, R. Kalish, A. Katz, B. Miller, and N. Moriya. Metallized paths on diamond surfaces. European Patent No. 92311255-1 and United States Patent 5,334,306, 1993.
- [60] N. Moriya, I. Brener, and L.C. Feldman. Reverse side etching for producing layers with strain variation. United States Patent 5,532,510, 1996.
- [61] Itzkovich Moti and N. Moriya. Method for determining the position of targets in three dimensional space by optical chirped *RF* modulation. Israel 120806 and United States Patent 5,982,480, 1999.
- [62] N. Moriya and Itzkovich Moti. System for three dimensional positioning and tracking. United States Patent 6,141,293, 2000.
- [63] N. Moriya, Itzkovich Moti, and Boaz Spivak. System for three dimensional positioning and tracking. Israel 126284 and United States Patent 6,316,934, 2001.
- [64] N. Moriya. Method and apparatus for determining the relative height of two targets. Israel 125142 and United States Patent 6,414,745, 2001.

- [65] N. Moriya, Itzkovich Moti, and Yehuda Albek. Localization and tracking system. Israel 127868 and United States Patent 6,484,131, 2002.
- [66] N. Moriya. System for three dimensional positioning and tracking with dynamic range extension. United States Patent 6,487,516, 2002.
- [67] N. Moriya, H. Primak, and M. Itzkovich. System for three dimensional positioning and tracking. United States Patent 6,691,074, 2004.
- [68] Noam Tzioni, Itzkovich Moti, and N. Moriya. Electrical circuit for cross-talk reduction. United States Patent 6,711,215, 2004.
- [69] N. Moriya, Gidron David, and Harel Primak. Input device for personal digital assistants. United States Patent 6,727,891, 2004.
- [70] N. Moriya, Itzkovich Moti, and Yehuda Albek. Digital coherent envelope demodulation of *FDMA* signals. Israel 132161 and United States Patent 6,735,263, 2004.
- [71] N. Moriya, Harel Primak, and Itzkovich Moti. System for three dimensional positioning and tracking. United States Patent 6,912,475, 2005.
- [72] N. Moriya and Harel Primak. Digital phase locked loop. United States Patent 6,931,082, 2005.
- [73] N. Moriya. System and method for statistically separating and characterizing noise which is added to a signal of a machine or a system. United States Patent 7,552,154, 2005.
- [74] N. Moriya. System and method for statistically separating and characterizing noise which is added to a signal of a machine or a system. United States Patent 8,285,764, 2012.
- [75] M. Margalit, D. Hirshberg, and N. Moriya. Hardware interconnect based communication between solid state drive controllers. United States Patent WO2015088485A1 PCT/US2013/073949, 2015.
- [76] N. Moriya. System and method for animal control. United States Patent 10,357,022, 2019.

## Private Communications

- N. Moriya, L.C. Feldman, C.A. King, and H.S. Luftman. Private communication, *AT&T Bell Labs*: Hole mobility and solid solubility of boron doped  $Si_{1-x}Ge_x$  strained layers. unpublished, 1993.
- N. Moriya and L.C. Feldman. Private communication, *AT&T Bell Labs BL01127-940617-12TM*: Comment on diffusion in strained  $Si(Ge)$ . unpublished, 1995.
- N. Moriya and B. Spivak. Private communication, *NTM-0243 Netmor Ltd.* - applied modeling research, ramat-hasharon, israel: Irregular magnetic field topology around mutually orthogonal, separated current loops. unpublished, 1999.
- N. Moriya. Private communication, *NTM-0121 siOnet Ltd.* - applied modeling research, ramat-hasharon, israel: A comment on a 15'th way and fundamental look at a correlation coefficient: Optimization-oriented. unpublished, 2006.

## Talks and Presentations at Conferences

- N. Moriya. Effects of  $Si$  implantation in  $Sb$ -silica spin-on layers. Material Research Society Fall meeting, Boston, MA, Dec. 3 1987.
- N. Moriya. Boron diffusion in  $Si_{1-x}Ge_x$  strained layers. Material Research Society Fall meeting, Boston, MA, Dec. 1 1992.

- N. Moriya. On dopant diffusion in strained layers. *AT&T Bell Laboratories Dept.* 11127, Murray Hill NJ, Feb. 17 1993.
- N. Moriya. Electrical and structural characterization of boron doped  $Si_{1-x}Ge_x$  strained layers. The Second International Workshop on the Measurement and Characterization of Ultra-Shallow Doping Profiles in Semiconductors, Research Triangle Park, NC, Mar. 23 1993.
- N. Moriya. On dopant diffusion in strained layers. Colloquium in the Physics Dep., Technion, Israel (**Invited**), May 1993.
- N. Moriya. Diffusion effects in  $Si_{1-x}Ge_x$  strained layers. Material Research Society Fall meeting, Boston, MA, Dec. 2 1994.
- N. Moriya. Boron diffusion in strained  $Si_{1-x}Ge_x$  epitaxial layers. at the American Physical Society meeting, (R4), Pittsburg, PA (**Invited**), Mar. 21 1994.
- N. Moriya. Boron diffusion in strained  $Si_{1-x}Ge_x$  epitaxial layers. at the Gordon Conference: Point & Line Defects in Semiconductors, Plymouth NH (**Invited**), May 1994.
- N. Moriya. Noise level estimation in stochastic processes. SIAM conference on, Computational Science and Engineering, Orlando, FL, **Chair of session:** "*Signal and Image Processing*", Apr. 7 2005.
- N. Moriya. Non-stationary noise estimation in adaptive linear and extended kalman filtering. 2'nd IC-EpsMsO Conference 2007, Athens, Greece, on the Experiments, Process, System Modeling, Simulation & Optimization, **Chair of session:** "*Kalman Filtering and SAR*", Jul. 4 2007.

## Music Composition

- N. Moriya. Variations on canon in  $D$  (pachelbel). unpublished, 2004.