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## LIST OF PUBLICATIONS

### *I. Paper in Refereed Journals*

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## **II. Chapters in Books, Proceedings Etc**

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18. Y.Prior, A.G.Kofman, R.Zaibel, and A.M.Levine, Non Markovian Stochastic Jump Processes in Nonlinear Optics, **QELS**, Baltimore (1989).
19. Y.Prior, Non Markovian Stochastic Jump Processes in Nonlinear Optics, **Israel Physical Society**, Bar Ilan University, Ramat Gan, Israel (1989, (**Invited**)).
20. Y.Prior, Asymmetric Coupled Quantum Wells, **Israel Physical Society Annual Meeting**, Bar Ilan University, Ramat Gan, Israel 1989, (**Invited**).
21. Nir Katzenellenbogen and Y.Prior, Narrow ( $1/T_1$ ) Features Within The Homogeneously Broadened Lines of a Hyperfine Spectrum, **CLEO**, Baltimore (1989).

22. J.E.Golub, P.F.Liao, Y.Prior, D.J.Eilenberger, J.P.Harbison, Optical Properties of Asymmetric coupled GaAs/AlGaAs Quantum Wells, **Topical Meeting on Solid State Semiconductor Lasers '89**, Beijing, China (1989) **(Invited)**.
23. Y.Prior, A.M.Levine, A.G.Kofman and R.Zaibel, Resonance Fluorescence From Atoms Excited by Strong Stochastic Laser Fields, **Ninth International Conference on Laser Spectroscopy, (NICOLS)** Bretton Woods, New Hampshire (1989).
24. Y.Prior, A.G.Kofman, R.Zaibel, and A.M.Levine Generalized Jump Model for Phase Fluctuations in Nonlinear Optics, **Rochester Conference on Coherence and Quantum Optics**, Rochester New York (1989).
25. Y.Prior, A.G.Kofman, R.Zaibel, and A.M.Levine The Generalized Jump Model, Non monochromatic laser light and atomic response, **satellite symposium to the Rochester Conference**, Rochester New York (1989). **Invited**.
26. Y.Prior, A.G.Kofman, R.Zaibel, and A.M.Levine, Non-Markovian Stochastic Jump Processes in Nonlinear Optics, **European Quantum Electronics Conference (EQEC)**, Dresden, East Germany, (1989) **Invited**
27. Nir Katzenellenbogen and Y.Prior, Narrow Features Within Homogeneously Power Broadened Lines, **ILS-V**, San Francisco (1989)
28. Nir Katzenellenbogen and Y.Prior, Rotational dependence of Hyperfine coupling constants in Molecular Bromine, **ILS-V**, San Francisco (1989)
29. Y.Prior, A.G.Kofman, R.Zaibel, and A.M.Levine, Lasers are not absolutely coherent. Can we do anything about it, and if not, can we at least say something about it? **French Israeli symposium on Nonlinear Optics**, Tiberias, (1990) **Invited**.
30. Katzenellenbogen, P.S.Stern and Y.Prior, On the measurement of (predissociation) rates in the frequency and time domains, **CLEO**, Anaheim, California (1990)
31. Y.Prior, A.Levinger and Nir Katzenellenbogen, High resolution hyperfine spectroscopy in real space, **CLEO**, Anaheim, California (1990)
32. Y.Prior and N.Katzenellenbogen, Rotational dependence of Hyperfine coupling constants in Molecular Bromine, **CLEO**, Anaheim, California (1990)
33. Y.Prior and A.G.Kofman, Generalization of the Phase Telegraph Noise Model: The case of resonance Fluorescence, **IQEC**, Anaheim, California (1990)
34. Y.Prior, Generalized jump model for phase fluctuations in nonlinear optics, **Vavilov conference on nonlinear optics**, Novosibirsk, USSR (1990), **(Invited)**
35. Y.Prior, Why are lasers not coherent? **International Workshop on Nonlinear Dynamics and Quantum Phenomena in Optical Systems**, Blanes (Gerona) Spain, 1990 **Invited**.
36. Y.Prior, A.G.Kofman, R.Zaibel, Generalized jump model for phase fluctuations - the case of highly anti correlated jumps, **SPIE, Optcon**, Boston, 1990, **Invited**
37. H.H.Yaffe, Y.Prior J.Harbison and L.T.Florez Polarization and wavelength dependence of relaxation processes as measured by time delayed four wave mixing in quantum wells, **QELS**, Baltimore (1991).
38. A.Levinger and Y.Prior, High resolution ( $0.00006 \text{ cm}^{-1}$ ) spectroscopy and dynamics in supersonic jets, **13th International Symposium In Molecular Beams, Madrid**, Spain (1991).
39. Nadav Horesh and Y.Prior, Field induced extra resonances in Four Wave mixing, **TENICOLS (Tenth International Conference on Laser Spectroscopy)**, Font Romeu, France (1991) (Postdeadline contribution).
40. Nadav Horesh and Y.Prior, Field Induced Resonances in Four Wave Mixing, **ILS-VII** Monterey, California, (1991)
41. H.H.Yaffe and Y.Prior, Polarization and wavelength dependence of quasi 2D exciton dephasing measured by time delayed four wave mixing, **Israel Physical Society**, Beer Sheva (1991).
42. Y.Prior, Adrian Levinger, High resolution spectroscopy in Supersonic molecular jets, **ILS-VII**, Monterey, California (1991).



43. Yaffe and Y.Prior, Polarization and wavelength dependence of photon echo decay times in Quantum Wells, **ILS-VII**, Monterey, California (1991)
44. Adrian Levinger and Y.Prior, Determination of longitudinal and transverse temperatures in supersonic jets by hyperfine spectroscopy in real space, **ILS-VII**, Monterey, California, (1991)
45. Y.Prior, Laser Processing of Diamonds - Design considerations and future trends, **International Diamond Technical Symposium**, Tel Aviv, (1991), **Plenary Talk**
46. Y.Prior and Nadav Horesh, Strong Field Four Wave Mixing, **XI European CARS Workshop**, Florence, Italy, (1992) **Invited**.
47. Y.Prior, H.H.Yaffe and A.Sharon, Exciton and biexciton dephasing in gas quantum wells - polarization effects and selection rules, **XI European CARS Workshop**, Florence, Italy, (1992)
48. Y.Prior and Amihai Fuxbrunner, laser processing of diamonds - Present status and future trends, **24 Israel conference on Mechanical Engineering**, Haifa, Israel, (1992) **Invited**.
49. A.Sharon, H.H.Yaffe and Y.Prior, Quantum well exciton dephasing - frequency and time domain measurements, **Israel Physical Society annual meeting**, Rehovot, (1992).
50. R.Zaibel and Y.Prior, Field correlation measurements in multi mode diode lasers, **Israel Physical Society annual meeting**, Rehovot, (1992).
51. N.Horesh and Y.Prior, Strong Field four wave mixing, **Israel Physical Society annual meeting**, Rehovot, (1992).
52. R.Zaibel and Y.Prior, Noise processes studies in multi mode diode lasers, 2d French Israeli symposium on Nonlinear Optics, Port Barcares, France (1992).
53. Y.Prior and Nadav Horesh, Strong field four wave mixing and field induced resonances, **2d French Israeli symposium on Nonlinear Optics**, Port Barcares, France (1992) **Invited**.
54. Y.Prior, R.Zaibel, B.M.Chernobrod and A.M.Levine, Effects of nonlinear noise in semiconductor lasers, **CLEO/QELS**, Baltimore (1993).
55. Nadav Horesh and Y.Prior, Observation of field induced resonances in four wave mixing, **CLEO/QELS**, Baltimore (1993).
56. Opher Kinrot and Y.Prior, Four Wave mixing in optically dense media, IQEC '94, Anaheim (1994)
- 57.** B.Chernobrod, R.Zaibel and Y.Prior, Long time scales in multimode semiconductor lasers, **OSA '94**, Dallas Texas (1994)
- 58.** B.Chernobrod and Y.Prior, Linewidth reduction in a two section semiconductor laser, **OSA '94**, Dallas Texas (1994)
59. Y.Prior, Strong fields in Nonlinear optics, **ILS-X**, Dallas Texas (1994)
60. Opher Kinrot and Y.Prior, Short pulse FWM in optically dense media, **XII European CARS workshop**, Paris, (1994), **Invited**
61. Y.Prior, Negative time delay in short pulse four wave mixing, **2'd Technion symposium on Optoelectronics**, Haifa (1994).
62. Y.Prior, Short pulse four wave mixing, **CUNY Staten Island Inauguration symposium**, New York, (1994).
63. Y.Prior, Short pulse probing of absorbing media, Israel Chemical Society, annual meeting, Rehovot, (1995) **Invited**.
64. Opher Kinrot, I.Sh.Averbukh and Y.Prior, Coherence Observation by Interference Noise, **CLEO/QELS**, Baltimore (1995), **Postdeadline**.
65. I.Sh.Averbukh, Opher Kinrot, and Y.Prior, Coherence Observation by Interference Noise - Spectroscopy and Short Pulse Characterization, **International Molecular Beams Conference**, Neve Ilan, (1995).
66. I.Sh.Averbukh, Opher Kinrot, and Y.Prior, Coherence Observation by Interference Noise, **Conference on Coherence and Quantum Optics**, Rochester (1995).
67. Y. Prior, I.Sh.Averbukh and Opher Kinrot, COIN - Coherence Observation by Interference Noise, **FRISNO 4**, Les Arcs, France (1996).

68. V. Milner, B.M.Chernobrod and Y. Prior, Coherent Population Trapping in a Highly Degenerate Open System, **FRISNO 4**, Les Arcs, France (1996).
69. Y. Prior, Propagation of Short Pulses in Optically Dense Media, **Conference on Time Dependent versus Time Independent Pictures**, Lab. Aime Cotton CNRS, Paris, France (1996). **Invited.**
70. Y. Prior, V. Milner and B.M.Chernobrod, Coherent Population Trapping in a Highly Degenerate Open System, **EQEC - European Quantum Electronics Conference**, Hamburg, Germany (1996).
71. Y. Prior, I.Sh.Averbukh and Opher Kinrot, COIN - Coherence Observation by Interference Noise, **CLEO/EUROPE**, Hamburg, Germany (1996).
72. J. Buhler, F. Meinecke and Y. Prior, Detection and Regrowth of Single Isolated Diamond Crystals, **ICNDST-5<sup>th</sup>** International Conference on the New Diamond Science and Technology, Tours, France (1996), **Postdeadline contribution upgraded to a plenary talk.**
73. Y. Prior, COIN - Coherence Observation by Interference Noise, **Israel Physical Society**, Beer Sheva, Israel, (1997), **Invited.**
74. Y. Prior, COIN - Coherence Observation by Interference Noise, **Israel Chemical Society**, Technion, Haifa, (1997), **Invited.**
75. Y. Prior, Nonlinear optical interactions of short pulses, British Israel **Symposium on Nonlinear and advanced Optics**, Yavne, Israel (1997), **Invited.**
76. Y. Prior, Multi Level Dark States - A Step Towards Laser Cooling of Molecules?, **Quantum Interference in Atoms and Molecules**, Ulm, Germany (1997) **Invited.**
77. Jurgen Buhler and Y. Prior, B-CARS (Backscattered Coherent Anti Stokes Raman Scattering) on thin CVD Diamond films, **FRISNO5**, Eilat, (1998).
78. Moshe Ben-Chorin, Silvia Chuartzman and Y. Prior , Distance measurements by white light coin interferometry, **FRISNO5**, Eilat, (1998).
79. Boris Chernobrod, Oleg Sedletsy, Ilya Averbukh, and Y. Prior, RESONANT SCANNING NEAR-FIELD MICROSCOPY, **FRISNO5**, Eilat, (1998).
80. Valery Milner and Y. Prior, Multi Level Dark States - Coherent Population Trapping by Elliptically Polarized (Possibly Incoherent) Light, **FRISNO5**, Eilat, (1998) **Invited.**
81. Valery Milner and Y. Prior, Spatial Orientation of Multilevel Elliptical Dark States and Hanle Resonances in Nonzero Magnetic Field, **FRISNO5**, Eilat, (1998)
82. Valery Milner and Y. Prior, Multi Level Dark States - Coherent Population Trapping by Elliptically Polarized (Possibly Incoherent) Light, **IQEC**, San Francisco, (1998).
83. Boris Chernobrod, Oleg Sedletsy, Ilya Averbukh, and Y. Prior, RESONANT SCANNING NEAR-FIELD MICROSCOPY, **Israel Physical Society**, Rehovot (1998).
84. Jurgen Buhler and Y. Prior , Backscattering CARS on CVD Diamond, **CLEO/EUROPE**, Glasgow, September (1998)
85. Valery Milner and Y. Prior, Biaxial Spatial Orientation of Dark Atoms, **EQEC**, Glasgow, September (1998)
86. Moshe Ben-Chorin, Silvia Chuartzman and Y. Prior , Absolute Distance measurements using a noisy interferometer, **CLEO/EUROPE**, Glasgow, September (1998)
87. Jurgen Buhler and Y. Prior , Backscattering CARS on CVD Diamond, Diamond '98, Greece, September (1998)
88. A. Eliahu, J. Buhler, M. Ben Chorin, H. Cohen and Y. Prior, Nano Particle Seeding and its Characterization by X ray Photoelectron Spectroscopy (XPS), Diamond '98, Greece, September (1998)
89. Y. Prior, Laser Precessing of Diamonds - Gem Quality and Thin Films, Annual Meeting of the Korean Vacuum Society, Changwon, Korea (1998) **Invited**
90. Y. Prior, A. Eliahu, J. Buhler, M. Ben Chorin and H. Cohen, Nano Particle Seeding and its Characterization by X ray Photoelectron Spectroscopy (XPS), Annual Meeting of the Korean Vacuum Society, Changwon, Korea (1998)

91. Y. Prior and Valery Milner, Coherent population trapping in multi-level systems - the observation of elliptically dark states, International Laser Physics Workshop (LPHYS'99) Budapest, Hungary (1999) **Invited**.
92. I. Sh. Averbukh, B.M. Chernobrod and Y. Prior, Coherent Scattering For Efficient Near Field Microscopy, QELS, Baltimore (1999).
93. Y. Prior, S. Chuartzman, B.M. Chernobrod, G. Haase and I.Sh. Averbukh, Apertureless Near Field Microscopy Based on Enhanced Tip-Surface Electromagnetic Interactions, in Abstracts of Israel-Japan Bi-National Workshop on Near Field Optics and Related Technologies Kiryat Anavim, Israel (1999) **Invited**
94. Y. Prior, I.Pinkas and G.Knop, Femtosecond Preparation and Monitoring of Ground State Vibrational Wavepackets, Israel Germany Ultrafast meeting, Shfaim, Israel, (October 1999) **Invited**
95. Y. Prior, I.Pinkas and G.Knop, Selective Preparation of Ground State Vibrational Wavepackets on a Sub-picosecond Timescale, International workshop on Quantum Control and Information, Nof Genosar, Israel (1999) **Invited**
96. I.Pinkas, G.Knopp and Y. Prior, Selective Preparation of Ground State Vibrational Wavepackets on a Sub-picosecond Timescale, FRISNO6, Les Houches, France (2000).
97. Y. Prior, Femtosecond preparation and monitoring of ground state vibrational wavepackets, **24<sup>th</sup> Informal Conference on Photochemistry**, San Juan, Puerto Rico, (2000) **Invited**
98. J. Fiurášek, B.M. Chernobrod, Y.Prior, and I.Sh. Averbukh, "Coherent light scattering and resonant energy transfer in apertureless near-field optical microscope" QELS'2000, San Francisco, (May 2000)
99. I. Pinkas, G. Knopp and Y.Prior, Vibrational Wavepackets High in the Electronic Ground State QELS'2000, San Francisco, (May 2000)
100. Y. Prior, I. Pinkas and G. Knopp, CARS monitoring of femtosecond prepared vibrational Wavepackets in the Electronic Ground State, James Franck Symposium, Kreuth, Germany, (February 2000) **Invited**
101. Tortschanoff, Ch. Warmuth, F. Milota, H.F. Kauffmann, M. Leibscher, Y. Prior, and I.Sh. Averbukh, "*Quantum Signatures of Wavepacket Dynamics from Fluorescence Interference Noise*", in Proceedings of the 240. WE-Heraeus-Seminar on "Driven Quantum Systems" (Tutzing, Germany, 17-21 September, 2000)
102. M. Leibscher, I.Sh. Averbukh, Y. Prior, M. Shapiro, Ch. Warmuth, A. Tortschanoff, F. Milota, W. Jakubetz, and H.F. Kauffmann, "*Molecular Wave Packet Revivals Probed by Phase-Randomized Fluorescence (COIN) Interferometry*", in book of Abstracts of the 13<sup>th</sup> European Conference on Dynamics of Molecular Collisions (MOLEC 2000) (Jerusalem, Israel, 17-22 September), p. 189
103. G. Knopp, Iddo Pinkas, Yehiam Prior, "*Femtosecond Time Resolved Preparation and Monitoring of Ground State Wavepackets in Di- and Triatomic Molecules*", 13<sup>th</sup> European Conference on Dynamics of Molecular Collisions (MOLEC 2000) Jerusalem, Israel, 17-22 September 2000
104. Yehiam Prior, Iddo Pinkas, Gregor Knopp, James Faeder And David Tannor, "*Femtosecond Selective Preparation Of Ground State Vibrational Wavepackets*", Israel Chemical Society Annual Meeting, Tel Aviv (February 2001) (**Invited**)
105. M. Leibscher, I. Sh. Averbukh, Y. Prior\*, M. Shapiro Ch. Warmuth, A. Tortschanoff, F. Milota W. Jakubetz H. F. Kauffmann "*Molecular wave packet revivals probed by phase-randomized fluorescence (COIN) interferometry*", CLEO/QELS 2001, Baltimore may (2001)
106. Yehiam Prior, "*Preparation of vibrational wavepackets by shaped femtosecond pulses*", Israel Chemical Society Annual Meeting, Tel Aviv (January 2003) (**Invited**)
107. I.Sh. Averbukh, R.Arviu, M.Leibscher and Y.Prior, "*Manipulating atoms and molecules by non-resonant fields: Optical kicking and shaking*", European Israeli Symposium on Nonlinear and Quantum Optics", Les Houches, France, (February, 2003), (invited)

108. Y. Prior and I. Sh. Averbukh, "Laser cooling of atoms and molecules via optical shaking", CLEO/QELS 2003, Baltimore, (June 2003)
109. Y. Prior, K. Zhang, V. Batenkov, Y. Paskover, J-H. Klein-Wiele and P. Simon "Optimized Pulse Duration For Femtosecond Laser Ablation", High Power laser ablation conference, HPLA 2004, Taos, New Mexico (April 2004)
110. Y. Prior, Kaiyin Zhang, V. Batenkov, Yuri Paskover, I. Sh. Averbukh, F. Korte and C. Fallnich, *Femtosecond laser material processing - how short is short?* Ultrafast processes 2004, Niigata, Japan (July 2004)
111. Y. Prior, Kaiyin Zhang, V. Batenkov, Yuri Paskover, I. Sh. Averbukh, F. Korte and C. Fallnich, *Femtosecond laser material processing - how short is short?* Nonlinear Optics, Waikoloa, Hawaii (August 2004)
112. Y. Prior, *Laser material processing – from nanoseconds to femtoseconds*, International Symposium on "Advanced Materials and Processing", Kharagpoor, India (2004) **Invited**
113. Y. Prior and I. Sh. Averbukh, *Laser cooling by optical shaking with feedback*, Nonlinear Optics, Waikoloa, Hawaii (August 2004)
114. Y. Prior, *Laser material processing – from nanoseconds to femtoseconds*, Photonics 2004, Cochin, India (2004) **Invited**
115. Sharly Fleischer, I. Sh. Averbukh and Y. Prior, *Molecular alignment, rotational wavepacket revivals and isotope separation*, Nonlinear Optics, Waikoloa, Hawaii (August 2004) **(Postdeadline)**
116. Y. Prior, *Laser material Processing*, ICOLS 2005, Dehradun, India (2005) **Invited**
117. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior. *Molecular alignment, wavepacket interference and isotope separation via rotational revivals*, 8<sup>th</sup> French Israeli Symposium on Nonlinear and Quantum Optics, Ein Bokek, Israel (2005). **Invited.**
118. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior. "Molecular alignment, wavepacket interference and isotope separation via rotational revivals" CLEO/QELS, Baltimore (May 2005)
119. I. Sh. Averbukh, Sharly Fleischer, and Yehiam Prior, "Isotope-selective alignment of molecules", 36th Winter Colloquium on The Physics of Quantum Electronics, Snowbird, Utah (2006) **Invited**
120. Sharly Fleischer, I. Sh. Averbukh and Y. Prior, "Detection of a single component in a mixture", Laser Applications to Chemical, Security and Environmental Analysis (LACSEA 2006), Incline Village, Nevada, (2006).
121. Sharly Fleischer, I. Sh. Averbukh, and Yehiam Prior, "Isotope-selective control of quantum rotational control", ISF Workshop on Decoherence, Entanglement and Information in Complex Systems (DEICS III)/ ISF Workshop on Quantum Dynamics of Cold Atoms and Light (QUDAL), Eilat, Israel, Feb. 26- March 3, 2006.
122. Yuri Paskover and Yehiam Prior, Single Pulse Detection of Coherent Vibrational Dynamics, Decoherence, Entanglement Information in Complex Systems III / Quantum Dynamics of Cold Atoms and Light , Eilat (February 2006)
123. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior. "Isotope selective control of quantum rotational dynamics", QUALS/DEICS, Eilat (February 2006)
124. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior. "Isotope-selective control of molecular alignment", Laser Optics International Conference, St.-Petersburg, Russia (June 2006) **Invited**
125. I. Sh. Averbukh, Sharly Fleischer, and Yehiam Prior, "Isotope-selective laser molecular alignment", **Coherent Control of the Fundamental Processes in Optics and X-ray-Optics (CCFP'2006)**, Nizhny Novgorod, Russia (June 2006) **Invited**
126. I. Sh. Averbukh, Sharly Fleischer, and Yehiam Prior, "Isotope-selective laser molecular alignment", **15th International laser physics workshop, , (LPHYS'06)**, (Lausanne, July, 2006) **Invited**
127. Yuri Paskover, I. Sh. Averbukh and Yehiam Prior, Single-Shot Femtosecond CARS Spectroscopy, **15th International Conference on Ultrafast Phenomena**, Pacific Grove, California, USA (July 2006)

128. Yuri Paskover, I. Sh. Averbukh and Yehiam Prior, Single-Shot Femtosecond CARS Spectroscopy, **Frontiers in Optics**, Rochester, USA (October 2006)
129. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior "Rotational Excitation Based Analytical Tools", **Frontiers in Optics**, Rochester, USA (October 2006)
130. I. Sh. Averbukh, Sharly Fleischer, and Yehiam Prior, "Spinning molecules selectively", **37th Winter Colloquium on The Physics of Quantum Electronics** (Snowbird, Utah - January, 2007) – **Invited Plenary talk**
131. Yuri Paskover, I. Sh. Averbukh and Yehiam Prior "Single-Shot Two Dimensional Time Resolved Four Wave Mixing, 72<sup>nd</sup> meeting of the **Israel Chemical Society**, Tel-Aviv (February 2007)
132. Andrey Kharchenko, Yuri Paskover and Yehiam Prior, Intrinsic Optical Heterodyne Detection in CARS Spectroscopy 72<sup>nd</sup> meeting of the **Israel Chemical Society**, Tel-Aviv (February 2007)
133. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior "Selective optical addressing of close molecular species: The cases of N<sub>2</sub> molecular isotopes and Para/Ortho spin isomers", 72<sup>nd</sup> meeting of the **Israel Chemical Society**, Tel-Aviv (February 2007)
134. Yuri Paskover, I. Sh. Averbukh and Yehiam Prior, Single-Shot Two Dimensional Time Resolved CARS, **FRISNO-9**, Les Houches (February 2007)
135. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior "Selective alignment of Spin Isomers: the case of Ortho and Para Nitrogen", **FRISNO-9** Les-Houches, France (February 2007)
136. Andrey Kharchenko, Yuri Paskover and Yehiam Prior, Intrinsic Optical Heterodyne Detection in CARS Spectroscopy, **FRISNO-9** Les-Houches, France (February 2007)
137. M. Y. Vilensky, Y. Prior, and **I. Sh. Averbukh**, Sysiphus-like cooling in a bistable optical resonator, **FRISNO-9** Les-Houches, France (February 2007) **Invited**
138. Y. Prior, Sharly Fleischer and I. Sh. Averbukh, The art of Spinning Molecules, 11<sup>th</sup> Meeting on Optical Engineering and Science, **OASIS**, Tel Aviv (March 2007) **Invited**
139. Sharly Fleischer, Ilya Sh. Averbukh, Yehiam Prior, "Selective Alignment of Molecular Spin Isomers", **ICQI/CQO9 2007** (Rochester, New-York, June 2007).
140. Yuri Paskover, Ilya Sh. Averbukh, Yehiam Prior, "Space-Time Maps for Single Pulse Four Wave Mixing", **ICQI/CQO9 2007** (Rochester, New-York, June 2007).
141. Yuri Paskover, I. Sh. Averbukh and Yehiam Prior, Single-Shot Two Dimensional Time Resolved Four Wave Mixing, **Time Resolved Vibrational Spectroscopy, TRVS-XIII**, Munich, Germany (June 2007), **Invited**
142. Alexander A Milner, Kaiyin Zhang, Michael Karpovski and Yehiam Prior, Apertureless near-field optics on commercial AFM: Tip to sample gap control, 17th international vacuum congress (ivc-17), 13th international **conference on surface sciences (icss-13)** and **international conference on nanoscience and technology**, Stockholm, Sweden (July 2007).
143. Yuri Paskover, I. Sh. Averbukh and Yehiam Prior, "Polarization Effects in Single-Shot Time Resolved Four Wave Mixing", **Frontiers in Optics**, San Jose, USA (September 2007).
144. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior, "Selective Rotational Manipulations of Close Molecular Species -- isotopes and isomers", **APS**, (March 2008).
145. Sharly Fleischer, I. Sh. Averbukh and Yehiam Prior, "Field-free unidirectional molecular rotation", **XVI International Conference on Ultrafast Phenomena**, Stresa Lago Maggiore, Italy, (June 2008).
146. Yehiam Prior, Sharly Fleischer, and I. Sh. Averbukh, "Strong-field selective manipulations in molecular mixtures", **17th International Laser Physics Workshop (LPHYS'08)**, Trondheim, Norway, (June 2008), **Invited**
147. I. Sh. Averbukh, Sharly Fleischer, and Yehiam Prior, "Selective Rotational Control in Molecular Mixtures", **VIIth Congress of the International Society for Theoretical Chemical Physics** Vancouver, Canada, July 2008) **Invited Plenary Lecture**

148. Yehiam Prior, Kaiyin Zhang and Alexander Milner, "Floating Tip Nanolithography", **Photonics 2008**, Delhi, India (December 2008), **Invited**
149. Yehiam Prior, Sharly Fleischer and Ilya Averbukh, Molecular Alignment – What Is It Good For? 74<sup>th</sup> meeting of the **Israel Chemical Society**, Tel-Aviv (February 2009) **Invited Plenary Talk**
150. A. Shalit, Y. Paskover, Y. Prior, Combined Time Frequency Detection by Single Shot Four Wave Mixing, **FRISNO-10**, Ein Gedi, Israel (February 2009), **Invited**
151. Alexander A Milner and Yehiam Prior, Tip Assisted Laser Induced Surface Nanolithography, **CLEO/IQEC**, Baltimore, Maryland, USA (June, 2009)
152. Sharly Fleischer, Yuri Khodorkovsky, I. Sh. Averbukh and Yehiam Prior, Field-free unidirectional molecular rotation following excitation by two ultrashort pulses, **CLEO/IQEC**, Baltimore, Maryland, USA (June, 2009)
153. Andrey Shalit, Yuri Paskover, and Yehiam Prior, Combined Time Frequency Detection by Single Shot Four Wave Mixing, **CLEO/IQEC**, Baltimore, Maryland, USA (June, 2009)
154. Yehiam Prior, Nanolithography, **International Workshop on Nanophotonics and Biophotonics**, Recife, Brazil (April 2009) **Invited**
155. Yehiam Prior, Specificity and symmetry in laser induced rotational alignment, **Gordon Research conference on Coherent Control**, New Hampshire, USA (August 2009), **Invited**
156. I. Sh. Averbukh, S. Fleischer, Y. Khodorkovsky, and Y. Prior, "The new adventures of a quantum rotor: laser control of molecular rotation", **Workshop "Quantum Nonstationary Systems"**, Brasilia, Brazil (October 2009) **Invited**
157. Sharly Fleischer, Yuri Khodorkovsky, Yehiam Prior, and Ilya Sh. Averbukh, Laser-controlled molecular propeller, **18th International Laser Physics Workshop (LPHYS'09)**, Barcelona, Spain (July 2009), **Invited**
158. Andrey Shalit, Yuri Paskover, and Yehiam Prior, Single Shot, Combined Time Frequency Four Wave Mixing, **18th International Laser Physics Workshop (LPHYS'09)**, Barcelona, Spain (July 2009), **Invited**
159. Yehiam Prior, Sharly Fleischer, Atalia Birman, and Ilya Sh. Averbukh, "Molecular Alignment – Small and Large, Slow and Fast". **Winter Colloquium on the Physics of Quantum Electronics, Snowbird**, Utah, (January 2010) **Invited**
160. Yehiam Prior and Alexander Milner Floating Tip Nanolithography, **19th International Laser Physics Workshop (LPHYS'09)**, Foz de Iguacu, Brazil (2010), **Invited**
161. Ilya Sh. Averbukh, E. Gershnel, Yu. Khodorkovsky, J. Floss, S. Fleischer, Y. Prior, Molecular propeller, molecular frisbee, and all that ... **Israel Chemical Society**, Tel Aviv (February 2010) **Invited**
162. Yehiam Prior, Sharly Fleischer, Atalia Birman, Yuri Khodorkovsky, Ilya Sh. Averbukh, Laser Induced Molecular Alignment Small and Large, Slow and Fast, **Latin America Optics And Photonics Conference (Laop)**, Recife, Brazil (September 2010) **Invited**
163. Yehiam Prior, Nanolithography, **Photonics2010**, Guwahati, India, December 2010, **Invited**
164. E. Tirosh, R. Klajn, S. Cohen, D. Cahen, Y. Prior, F. Reinders, M. Mayor, E. Benassi, S. Pipolo, S. Corni, and M. A. Rampi; Control of Photoisomerization Efficiency in Azobenzene Self-Assembled Monolayers by Diluent Ratio and Correlation with Spectral Blue Shift, **FRISNO-11**, Aussois, France (March 2011)
165. A. Milner, R. Castagna, S. Weissmann, I. Averbukh, D. Chauvat, J. Zyss, and Y. Prior; AFM tip induced optical nonlinearity at the nano scale in polymer, **FRISNO-11**, Aussois, France (March 2011)
166. Uri Steinitz, Yehiam Prior, and Ilya Sh. Averbukh, "Laser Induced Vortices in a Gas", **57th meeting of the Israel Physical Society**, Haifa, Israel, (March 2011)
167. A. Shalit, Y. Paskover, and Y. Prior, Combined Time Frequency Detection by Single Shot Four Wave Mixing, **FRISNO-11**, Aussois, France (March 2011)

168. A. Milner, R. Castagna, S. Weissmann, I. Averbukh, D. Chauvat, J. Zyss, and Y. Prior, "AFM tip induced optical nonlinearity at the nano scale in polymer", **FRISNO'11** Aussois, France, (March 2011)
169. E. Gershnel and I. Sh. Averbukh, "Electric Deflection of Rotating Molecules", **FRISNO'11** Aussois, France, (March 2011)
170. U. Steinitz, Y. Prior, and I.S. Averbukh, Laser Induced Vortices in Gases, **FRISNO-11**, Aussois, France (March 2011)
171. Yehiam Prior, Modern Methods in Laser Spectroscopy, **Fifth Erasmus Mondus Summer School on Molecular Nano- and biophotonics**, Frejus, France (June 2011) **Invited**
172. Yehiam Prior "Four Wave Mixing Spectroscopy – a Mirror in Time" **Nonlinear Optics - East West Reunion**, Suzdal, Russia, (October 2011) **Invited**
173. Adi Salomon, **Yehiam Prior**, Marcin Zielinski, Radoslaw Kolkowski and Joseph Zyss, "Nonlinear Optical Response of Nanohole in Metallic Films", **Israel Chemical Society annual meeting**, Israel (February 2012), **Invited**
174. Uri Steinitz, Yehiam Prior, and Ilya Sh. Averbukh, "Laser Induced Macroscopic Vortices in a Gas", **CLEO:QELS 2012** San Jose, CA, (May 2012)
175. Adi Salomon, Marcin Zielinski, Radoslaw Kolkowski, Joseph Zyss and Yehiam Prior, "Size Resonances and Giant SHG from Metallic Nanoholes", **CLEO:QELS 2012** San Jose, CA, (May 2012)
176. Yehiam Prior, Nonlinear Laser Spectroscopy, **Sixth Erasmus Mondus Summer School on Molecular Nano- and biophotonics**, France (June 2012) **Invited**
177. O. Korech, I. Sh. Averbukh, U. Steinitz, R.J. Gordon, and Y. Prior, "Unidirectional molecular rotation measured by the rotational Doppler effect" **19th International Laser Physics Workshop (LPHYS'11)**, Calgary, Canada (July 2012), **Invited**
178. A. Salomon, M. Zielinski, R. Kolkowski, J. Zyss, and Y. Prior "Size resonances and hybridization of metallic nano-cavities" **19th International Laser Physics Workshop (LPHYS'11)**, Calgary, Canada (July 2012), **Invited**
179. Adi Salomon, Marcin Zielinski, Radoslaw Kolkowski, Joseph Zyss, and Yehiam Prior "Size Resonances and Hybridization of Metallic Nanoholes", **International Conference on Nanoscience + Technology 2012**, Paris, France (July 2012)
180. Omer Korech, Ilya Averbukh, Uri Steinitz, Robert Gordon, and Yehiam Prior, "Unidirectional Molecular Rotation Measured by Rotational Doppler Effect", **XVIIIth International Conference on Ultrafast Phenomena**, Lausanne, Switzerland (July 2012)
181. Uri Steinitz, Yehiam Prior and Ilya Sh. Averbukh, "Laser-Induced Gas Vortices", **Batsheva de Rothschild Seminar on Laser Control of Chemical Reactions: Toward Deciphering Mechanisms and Understanding the Theoretical and Experimental Limits**, Safed, Israel (September 2012)
182. Adi Salomon, Marcin Zielinski, Radoslaw Kolkowski, Joseph Zyss and Yehiam Prior, "Size Resonances and Hybridization of Metallic Nano-cavities", **12th International Conference on Near Field Nanophotonics and Related Techniques**, San Sebastian, Spain, (September 2012)
183. A. Salomon, R. Kolkowski, J. Zyss, and Y. Prior "Size resonances and hybridization of metallic nano-cavities" **Dwek School on Nanoplasmonics**, Rehovot, Israel (December 2012)
184. Yehiam Prior "Molecular manipulation by ultrafast laser pulses", Indo-Israel meeting on Materials Science and Nanoscience (**IIMMN-2013**), Cochin, India, (January 2013) **Invited**
185. Yehiam Prior "Light-matter surface interactions on the nano scale", **Indo-Israel Meeting on Materials for Nanoscience, Biosensors and Energy** Bangalore, India (February 2013) **Invited**
186. Salomon Adi, Yehiam Prior, Radoslaw Kolkowski and Joseph Zyss, From individual to strongly coupled nanocavities, **FRISNO 12**, Ein Gedi, Israel (February 2013) **Invited**
187. Korech Omer, Uri Steinitz, Robert J. Gordon, Ilya Sh. Averbukh and Yehiam Prior, Unidirectional Molecular Rotation Measured by the Rotational Doppler Effect, **FRISNO 12**, Ein Gedi, Israel (February 2013)

188. Steinitz Uri, Erez Gershnel, Yehiam Prior, and Ilya Sh. Averbukh, Chiral Interaction between Rotating Molecules and Short Laser Pulses, **FRISNO 12**, Ein Gedi, Israel (February 2013)
189. A. Salomon, Y. Prior, R. Kolkowski and J. Zyss, "Comparing nanocavities and nanoparticles plasmonic coupling regimes by quadratic nonlinear optics", CLEO Europe, Munich, Germany (June 2013)
190. Yehiam Prior "Strong field laser matter interactions" **20th International Laser Physics Workshop (LPHYS'14)**, Prague, Czech Republic, (July 2013), **Invited**
191. Yehiam Prior, Adi Salomon, Radoslaw Kolkowski and Joseph Zyss, From Individual to Coupled Metallic Nanocavities, SPIE Optics and Photonics, San Diego, USA (August 2013) **Invited**
192. Yehiam Prior, Light Matter Interaction And Laser Ablation, Light matter interaction symposium, Mumbai, India (October 2013), **Invited Tutorial**
193. Yehiam Prior, Strong coupling in Metallic nanocavities, Israel Chemical society, Tel Aviv, (2014) **Invited**
194. Yehiam Prior, Long range coupling of metallic nanocavities, NanoIsrael 2014, Tel Aviv (2014), **Invited Key Note**
195. Yehiam Prior, A. Salomon, M. Fedoruk, J. Feldmann, R. Kolkowski and J. Zyss, Nonlinear optical response and long range coupling of metallic nanocavities, 21<sup>st</sup> International Laser Physics Workshop (LPHYS'12), Sofia, Bulgaria (July 2014), **Invited**
196. E. Almeida, Y. Prior, Tailoring the Shape of Metallic Nanocavities for Enhanced Four-Wave Mixing, Conference on Lasers and Electro-Optics (CLEO 2015), San Jose/CA (2015)
197. E. Almeida, Y. Prior, Efficient Four-Wave Mixing from Rationally Designed Arrays of Metallic Nanocavities, Surface Plasmon Photonics 7 (SPP7), Jerusalem/Israel (2015)
198. E. Almeida, Y. Prior, Designing Metallic Nanocavities for Enhanced Four-Wave Mixing, Nanometa 2015, Seefeld/Austria (2015)
199. Yehiam Prior, Nonlinear Optical and Plasmonic interactions in metallic nanostructures, ChinaNano2015, Beijing, (August 2015) **Invited Key Note**
200. Yehiam Prior, Strong Field Coupling in Plasmonic Nanocavities, 22d **International Laser Physics Workshop (LPHYS'15)**, Shanghai, China (August 2015), **Invited**
201. G Karras, E Hertz, F Billard, B Lavorel, J-M Hartmann, O Faucher, E Gershnel, Yehiam Prior and I Sh Averbukh, Orientation and Alignment Echoes in Laser Excited Molecular Gases, 22d **International Laser Physics Workshop (LPHYS'15)**, Shanghai, China (August 2015), **Invited**
202. Yehiam Prior, G Shalem, E Almeida, Subwavelength Nonlinear Phase-Control and Anomalous Phase-Matching in Plasmonic Metasurfaces, 22d **International Laser Physics Workshop (LPHYS'15)**, Shanghai, China (August 2015), **Invited**
203. Yehiam Prior, Plasmonic interactions in metallic nanocavities, **The third China Israel workshop on Nano Science and Nano Technology**, Kaifeng, China (August 2015) **Invited**
204. **Yehiam Prior**, Laser Ablation- How Fast is Fast? and How Small is Small, Annual meeting of Laser material processing, Israel IEEE, Tel Aviv (November 2015) **Invited**
- 205.