

## **PUBLICATIONS** (updated December 15 2022)

### **Theses**

M.Sc. thesis: "Bose Einstein condensation and the superconducting transition in coupled linear chain systems", Jerusalem, 1969.

Ph.D. thesis: "Microscopic treatment of spin-transport problems in metals near the superconducting transition or in the vicinity of the Peierls instability", Jerusalem, 1976.

### **Published papers**

1. M. Weger, **T. Maniv**, A. Ron and K.H. Bennemann, "Effect of Superconducting Fluctuations on the Spin Relaxation of Quasi-1-d Compounds", *Phys. Rev. Lett.* **9**, 584-588 (1972).
2. **T. Maniv** and M. Weger, "The Superconducting Transition in coupled Linear Chain Systems", *J. Phys. Chem. Solids* **36**, 367-376 (1975).
3. **T. Maniv** and S. Alexander, "Fluctuation Effects on N.M.R. in Superconductors", *Solid State Communication* **18**, 1197-1200 (1976).
4. **T. Maniv** and S. Alexander, "Superconducting Fluctuation Effects on the Local Electronic Spin Susceptibility", *J. Phys. C: Solid State* **9**, 1699-1712 (1976).
5. **T. Maniv** and S. Alexander, "Superconducting Fluctuation Effects on the Local Electronic Spin Susceptibility: II. The impure case", *J. Phys. C: Solid State* **10**, 2419-2424 (1977).
6. **T. Maniv**, "A Giant Enhancement of the Nuclear Relaxation Rate near Tc in Quasi-1-d Superconductors", *Solid State Comm.* **26**, 115-118 (1978).

7. **T. Maniv** and Morrel H. Cohen "Noble Gas Solid-Surface Beam-Scattering Spectroscopy in the eV range: Nuclear channel, Formal Theory", *Phys. Rev. B* **19**, 4883-4895 (1979).
8. S. Efrima, **T. Maniv** and H. Metiu, "A Theory of Giant Raman Scattering by Adsorbed Molecules on Metal Surfaces", *Proc. II. Joint U.S.A.-U.S.S.R. Symp.*, Ed. J.L. Birman and H.Z. Cummins, Plenum Press 1979.
9. **T. Maniv** and H. Metiu, "Electron Gas Effects in the Spectroscopy of Molecules chemisorbed at a Metal Surface: I. Theory", *J. Chem. Phys.* **72**, 1996-2006 (1980).
10. **T. Maniv** and H. Metiu, "Electrodynamics at a Metal Surface: I. General Theory", *Phys. Rev. B* **22**, 4731-4738 (1980).
11. **T. Maniv** and H. Metiu, "Some Comments concerning the Microscopic Theory of Raman Scattering by Adsorbed Molecules", *Surf. Sci.* **101**, 399 (1980).
12. G. Korzeniewski, **T. Maniv** and H. Metiu, "The Interaction between an Oscillating Dipole and a Metal Surface", *Chem. Phys. Lett.* **73**, 212-217 (1980).
13. **T. Maniv** and H. Metiu, "Raman Reflection - a possible Mechanism for the Enhancement of the Raman Scattering by Adsorbed Molecules", *Chem. Phys. Lett.* **79**, 79-85 (1981).
14. **T. Maniv** and H. Metiu, "Electrodynamics at a Metal Surface: II. Fresnel Formulas for a Jellium Model within the R.P.A.", *J. Chem. Phys.* **76**, 2697-2713 (1982).
15. **T. Maniv** and H. Metiu, "Electrodynamics at a Metal Surface: III. Reflectance and the Photoelectron Yield of a Thin Slab", *J. Chem. Phys.* **76**, 696-709 (1982).
16. **T. Maniv**, "A Quasi-Hard Wall Model for the Scattering of Atomic Beams from Solid Surfaces", *Chem. Phys.* **65**, 177-184 (1982).
17. G. Korzeniewski, **T. Maniv** and H. Metiu, "Electrodynamics at a Metal Surface:  
IV. The Electric Fields caused by the Polarization of a Metal

- Surface by an Oscillating Dipole", *J. Chem. Phys.* **76**, 1564-1573 (1982).
18. **T. Maniv**, "Raman Scattering arising from Reflectivity Modulation by Impurities near the Surface of a Metal", *Phys. Rev. B* **26**, 2856-2874 (1982).
  19. **T. Maniv**, "Effect of a SDW Instability on the Nuclear Spin Lattice Relaxation in Quasi 1-D Conductors", *Solid State Commun.* **43**, 47-50 (1982).
  20. I.D. Vagner, **T. Maniv** and E. Ehrenfreund, "Prediction of Strong Magnetic Quantum Oscillations of the Nuclear-Spin Relaxation in a Quasi 2-D Metal", *Solid State Commun.* **44**, 635-638 (1982).
  
  21. I.D. Vagner, **T. Maniv** and E. Ehrenfreund, "Ideally Conducting Phases in Quasi 2-D Conductors", *Phys. Rev. Letters* **51**, 1700-1703 (1983).
  22. **T. Maniv**, "Raman Sidebands in the Reflectivity from Metals due to Surface Impurities", *J. Physique C* **10**, 321-325 (1983).
  
  23. Ruth Shinar, **T. Maniv** and M. Folman, "The Effect of Adsorption of various Gas Molecules on the EELS of the (100) face of Tungsten", *Surf. Science* **141**, 158-168 (1984).
  
  24. **T. Maniv** and Morrel H. Cohen, "Semiclassical Approach to the Scattering of Atomic Beams by a Corrugated Surface Potential: An Approximate Analytical Solution", *Phys. Rev. Letters* **53**, 78-81 (1984).
  25. **T. Maniv** and Morrel H. Cohen, "Collisions in the Classical Limit: The Vanishing Potential Theorem", *Phys. Rev. Letters* **54**, 611-613 (1985).
  26. I.D. Vagner and **T. Maniv**, "Spikes in the Orbital Magnetic Susceptibility of a 2-D Electron Gas", *Phys. Rev. B* **32**, 8398-8400 (1985).
  27. N. Moiseyev, **T. Maniv**, Ron Elber and R.B. Gerber, "Lifetimes of Rotational Resonances in Molecule-Surface Scattering: Quantum versus Classical Results", *Mol. Phys.* **55**, 1369-1384 (1985).

28. **T. Maniv** and Morrel H. Cohen, "Simple Theory of Atom-Surface Scattering", *Phys. Rev. B* **33**, 5333-5343 (1986).
29. **T. Maniv**, E. Engdahl and N. Moiseyev, "Application of the Complex Rotation Method to the study of Resonance States of Atoms at a Corrugated Surface", *J. Chem. Phys.* **86**, 1048-1055 (1987).
30. P. Gies, R.R. Gerhardts and **T. Maniv**, "Microscopic Theory of Electrodynamic Response of Diffuse Jellium Surfaces", *Phys. Rev. B* **35**, 458-467 (1987).
31. A. Hoffman, **T. Maniv** and M. Folman, "Auger and XP Spectra of Oxygen adsorbed on Al(100); Relaxation Energies and the nature of the Adsorbed Layer", *Surf. Sci.* **182**, 56-68 (1987).
32. A. Hoffman, **T. Maniv** and M. Folman, "AES and XPS Studies of NO adsorption on Al(100) Single Crystal", *Surf. Sci.* **183**, 484-502 (1987).
33. A. Hoffman, **T. Maniv** and M. Folman, "EELS Studies of the Adsorption of O<sub>2</sub> and NO on Al(100)", *Surf. Sci.* **193**, 513-528 (1988).
34. A. Hoffman, **T. Maniv** and M. Folman, "A Study of O<sub>2</sub> Adsorption on Cu-Al(100) Surfaces of different Al concentrations by mean of AES and XPS", *Surf. Sci.* **193**, 57-80 (1988).
35. E. Engdahl, **T. Maniv** and N. Moiseyev, "Complex Quasi Probability for Atoms Trapped on Surfaces: A novel application of the Complex Coordinate Method", *J. Chem. Phys.* **88**, 5864-5870 (1988).
36. I.D. Vagner and **T. Maniv**, "Nuclear Spin Lattice Relaxation: A Microscopic Local Probe for systems exhibiting the QHE", *Phys. Rev. Letters* **61**, 1400-1403 (1988).
37. **T. Maniv**, R.S. Markiewicz, I.D. Vagner and P. Wyder, "Magnetooscillations in quasi 2-D, extreme type II Superconductors", *Physica C* 153-155, 1179-1180 (1988).
38. R.S. Markiewicz, I.D. Vagner P. Wyder, and **T. Maniv**, "Magnetooscillations in a Superconductor", *Solid State Comm.* **67**, 43-45 (1988).

39. **T. Maniv** and I.D. Vagner, "Broadening of the Landau Levels in Quasi 2D Conductors due to Impurity Scattering", *Phys. Rev. B* **38**, 6301-6304 (1988).
40. A. Hoffman, **T. Maniv** and M. Folman, "A Study of NO Adsorption on Cu-Al(100) Surfaces of Different Aluminum Concentrations by means of AES", *Surf. Sci.* **207**, 89 (1988).
41. **T. Maniv** and P. Gies, "A Microscopic Theory of Electron Energy Loss Spectroscopy for a Simple Metal", *Surf. Sci.* **211/212**, 242-248 (1989).
42. I.D. Vagner, **T. Maniv**, W. Joss, J.M. van Ruitenbeck and K. Jauregai, "Theory of the de Haas-van-Alphen effect in quasi 2D conductors", *Synthetic Metals* **34**, 393-398 (1989).
43. **T. Maniv** and I.D. Vagner, "Ginzburg-Landau Theory of Diamagnetic Phase Transitions in a Quasi 2-D, Elecron-Gas", *Phys. Rev. B* **41**, 2661-2664 (1990).
44. E. Engdahl, N. Moiseyev and **T. Maniv**, "A theory of He-diffraction and resonance scattering from Cu(115) by the complex coordinate method", *J. Chem. Phys.* **94**, 1636-1642 (1990).
45. **T. Maniv** and I.D. Vagner, "Nuclear Spin-Lattice Relaxation in Quasi-2D Systems: The role of impurity scattering", *Surf. Sci.* **229**, 134-136 (1990).
46. I.D. Vagner, **T. Maniv** and T. Salditt, "Nuclear Spin-Lattice Relaxation under the QHE conditions in the Edge States", in *High Magnetic Fields in Semiconductor Physics III*, ed. by G. Landwehr, Springer-Verlag, Heidelberg (1990).
47. **T. Maniv**, R.S. Markiewicz, I.D. Vagner and P. Wyder, "Reentrance of the Superconducting State in a Strong Magnetic Field", *Physica B* **165&166**, 361-362 (1990).
48. E. Engdahl, **T. Maniv** and N. Moiseyev, "Gas-Surface Scattering Cross-Section by the Complex Coordinate Method", *J. Chem. Phys.* **94**, 6330-6333 (1991).

49. **T. Maniv**, A.I. Rom, R. S. Markiewicz, I.D. Vagner and P. Wyder, "Superconductivity on Landau levels", *J. Phys. Chem. Solids* **52**, 1391-1393 (1991).
50. **T. Maniv**, A.I. Rom, R.S. Markiewicz, I.D. Vagner and P. Wyder, "The interplay between superconductivity and Landau quantization", *Physical Phenomena at High Magnetic Fields*, ed. E. Manousakis, P. Schlottmann, P. Kumar, K. Bedell and F.M. Mueller (Addison-Wesley 1991).
51. **T. Maniv**, R.S. Markiewicz, I.D. Vagner and P. Wyder, "Strong Quantum Oscillations in the order parameter of 2D, type-II Superconductors", *Phys. Rev. B* **45**, 13084-13087 (1992).
52. H. Cohen, E. Kolodney, **T. Maniv** and M. Folman, "A Comparative Reflection EEL Study of C<sub>60</sub> and Graphite", *Solid State Commun.* **81**, 183-186 (1992).
53. **T. Maniv**, A.I. Rom, I. vagner and P. Wyder, "De Haas van Alphen effect in the superconducting state of a 2D metal", *Phys. Rev. B* **46**, 8360-83375 (1992).
54. H. Cohen, M. Folman, R. Brener, T. Maniv, E. Lifshitz and Z. Esterlit, "Electronic Excitations in SnS<sub>2</sub>: EELS Study", *Phys. Rev. B* **46**, 4446-4456 (1992).
55. **T. Maniv**, A.I. Rom, I.D. Vagner and P. Wyder, "De-Haas-Van-Alphen Oscillations in Extremely Type-II Nearly 2D Superconductors", *Physica C* **209**, 35 (1993).
56. **T. Maniv**, I.D. Vagner and P. Wyder, "The Transition to Superconductivity in 2-D Systems under Strong Magnetic Fields", *J. Phys. Chem. Solids* **54**, 1283-1286 (1993).
57. Yu. A. Bychkov, **T. Maniv** and I.D. Vagner, "A New Mechanism for the Nuclear Spin Depolarization in a Spin-Diode", *Pisma Zh. Eksp. Teor. Fiz.*, **58**, 840-843 (1993); *Sov. Phys. JETP Lett.* **58**, 788-791 (1994).
58. H. Cohen, E. Kolodney, A.F. Hebard, **T. Maniv** and M. Folman, "Plasmon Harmonic Fine Structure in Reflection EELS of C<sub>60</sub> Crystallites", *Europhysics Letters* **27**(7), 519-524 (1994).

59. M.A. Itskovsky, G.F. Kventsel and **T. Maniv**, "Periodic Diamagnetic Domain Structures in Metals under Quantizing Magnetic Field", *Phys. Rev. B* **50**, 6779-6791 (1994).
60. Yu. A. Bychkov, **T. Maniv**, I.D. Vagner and P. Wyder, "Gapless Spin-Excitons in Periodically Modulated 2D Electron Gas", *Phys. Rev. Lett.* **73**, 2911 (1994).
61. **T. Maniv**, A.I. Rom, I.D. Vagner and P. Wyder, "The Analogue of the Lifshitz-Kosevich Formula for the DHvA Effect in the Vortex State of a 2D Superconductor", *Physica C* **235-240**, 1541-1542 (1994).
62. **T. Maniv**, Yu.A. Bychkov, A. Kaplunovsky and I.D. Vagner, "Band Structure of the Spin Excitations in Modulated Heterostructures under Strong Magnetic Fields", *Physica B* **204**, 134-140 (1995).
63. I.D. Vagner and **T. Maniv**, "Hyperfine Interactions in Quantum Hall Systems", *Physica B* **204**, 141-148 (1995).
64. Yu. A. Bychkov, **T. Maniv** and I.D. Vagner, "Nuclear Spin Diffusion via Spin Excitons in the QHE Regime," *Solid State Commun.* **94**, 61 (1995).
65. Yu.A. Bychkov, **T. Maniv** and I.D. Vagner, "Charged Skyrmions in a System of 2D Spin Excitons in the Hartree-Fock Approximation", *Pisma Zh. Eksp. Teor Fiz.* **62**, 709-714 (1995).
66. Yu.A. Bychkov, **T. Maniv** and I.D. Vagner, "Charged Skyrmions: A Condensate of Spin Excitons in a 2D Electron Gas", *Phys. Rev. B* **53**, 10148-10153 (1996).
67. M. Itskovsky, **T. Maniv** and I.D. Vagner, "De Haas van Alphen Effect in 2D Conductors: Susceptibility Oscillations", *Zeitschrift für Physik B* **101**, 13-22 (1996).
68. A.Y. Rom, S. Fishman, R. Kosloff and **T. Maniv**, "Dynamics of a Charge Particle in a Magnetic-Flux Lattice", *Phys. Rev. B* **54**, 9819-9827 (1996).
69. I.D. Vagner, Yu A. Bychkov, A.M. Dyugaev and **T. Maniv**, "Hyperfine Interactions and Spin Textures in Quantum Hall Systems", *Physica Scripta*, **T66**, 158-162 (1996).

70. **T. Maniv**, A.Y. Rom, I.D. Vagner and P. Wyder, “Order Parameter Induced Phase Shift in the dHvA Oscillations in Type-II Superconductors”, *Solid State Commun.*, **101**, 621-625 (1997).
71. M.A. Itskovsky, **T. Maniv** and G.F. Kvetsel, “Phase Diagrams for Diamagnetic Phase Transitions in 2D Conductors”, *Phys. Rev. B.*, **55**, 5636-5639 (1997).
72. Yu. A. Bychkov, **T. Maniv**, I.D. Vagner, and P. Wyder, “Narrow Resonance States of 2D Magnetic Spin-Exciton in Periodically Modulated Fields”, *Europhysics Letts.*, **49**, 557-562 (1997).
73. V.N. Zhuravlev, **T. Maniv**, I.D. Vagner and P. Wyder, “Coherence in the Quasi-Particle Scattering by the Vortex Lattice in Pure Type II Superconductors”, *Phys. Rev.B* **56**, 14693-14702 (1997).
74. Yu. A. Bychkov, V. Kolesnikov, **T. Maniv**, and I.D. Vagner, “Spatial Spin Distribution of a Skyrmion in a 2D Electron Gas at a Small g-Factor”, *J. Phys.: Cond. Matt.*, **10**, 2029-2037 (1998).
75. H. Cohen, **T. Maniv**, R. Tenne, Y. Rosenfeld, O. Stephan and C. Colliex, “Near Field EELS of Nanoparticles”, *Phys. Rev. Lett.*, **80**, 782-785 (1998).
76. M.A. Itskovsky, S. Askenazy, **T. Maniv**, I.D. Vagner, E. Balthes, and D. Schweitzer, “Spin-split dHvA effect in 2D Electron Systems”, *Phys. Rev. B* **58**, R13347-13350 (1998).
77. V.N. Zhuravlev, **T. Maniv**, I.D. Vagner, and P. Wyder, “Streamer Propagation in Magnetic Field”, *Cond-Matt/9708017*.
78. **T. Maniv**, V.N. Zhuravlev, I.D. Vagner, and P. Wyder, “Gorkov Expansion and the dHvA Effect in the Vortex state”, *J. Phys. Chem. Solid*, **59**, 1841-1845 (1998).

79. V.N. Zhuravlev, **T. Maniv**, I.D. Vagner, and P. Wyder, “Vortex Lattice Melting and the Damping of the dHvA Oscillations in the Mixed State”, *Cond-Matt/9812040*.
80. V.N. Zhuravlev, and **T. Maniv**, “simple Analytical model of Vortex Lattice Melting in 2D Superconductors”, *Phys. Rev. B* **60**, 4277-4284 (1999).
81. V.N. Zhuravlev, **T. Maniv**, I.D. Vagner, and P. Wyder, “A unified Mean Field Approach to the dHvA Effect in Vortex State near the Upper Critical Field”, *J. Phys. : Cond. Matt.*, **11**, L393-399 (1999).
82. H. Cohen, **T. Maniv**, R. Tenne, Y. Rosenfeld, O. Stephan and C. Colliex, “Reply to comment on Near Field EELS of Nanoparticles”, *Phys. Rev. Lett.*, **83**, 659 (1999).
83. M. Itskovsky, **T. Maniv** and I.D. Vagner, “ Wave form of the dHvA Oscillations in 2D metal”, *Phys. Rev B* **61**, 14616-14627 (2000).
84. **T. Maniv**, Yu. A. Bychkov, I.D. Vagner and P. Wyder, “Fast incomplete decoherence of nuclear spins in quantum Hall Ferromagnet”, *Phys. Rev. B* **64**, 193306-1-4 (2001).
85. M.A.Itskovsky and **T. Maniv**, “Fourier analysis of the dHvA oscillations in 2D electron systems with background reservoir states”, *Phys. Rev. B* **64**, 174421-174428 (2001).
86. **T. Maniv**, V.N. Zhuravlev, I.D. Vagner, and P. Wyder, “ Vortex States and Quantum Magnetic Oscillations in Conventional Type-II Superconductors” (**REVIEW ARTICLE**), *Reviews of Modern Physics*, **73**, 4 , 867-911 (2001).
87. **T. Maniv**, V.N. Zhuravlev, I.D. Vagner, and P. Wyder, “ Superconducting fluctuation effect on the dHvA Oscillations in the vortex liquid state of 2D Superconductors” , *Physica B* **315**, 47-55 (2002).
88. V.N. Zhuravlev and **T. Maniv**, “Landau orbitals description of the vortex state in a 2D extremely type-II superconductor” , *Phys. Rev. B* **66**, 014529-1-11 (2002).

89. K. Gokhberg, A. Glozman, E. Lifshitz and **T. Maniv**, M.C. Schlamp and P. Alivisatos, "Electron (hole) paramagnetic resonance of spherical CdSe nanoparticles", *J. Chem. Phys.* **117**, 2909-2913 (2002).
90. H. Cohen, B. I. Lembrikov , M. Itskovsky , and **T. Maniv**, "Electromagnetic Quantum Size Effects in Directional Near-Field EELS of Nano-Crystals", *NANO LETT* **3** (2): 203-206 (2003).
91. B. I. Lembrikov , M. Itskovsky , H. Cohen , and **T. Maniv**, "Electrodynamics in the Near-Field regions of anisotropic Nanoscopic Films and Platelets" , *Phys. Rev. B* **67** (8): 085401-1-12 (2003).
92. V. Zhuravlev and **T. Maniv**, "The Vortex Liquid state in a 2D Superconductor at High Magnetic Fields", in NATO Science Series, *Recent Trends in Theory of Physical Phenomena in High Magnetic Fields*, ed. I.D. Vagner, P. Wyder, and T. Maniv, (Kluwer Ac. Pub., Dordrecht 2003).
93. V. Zhuravlev and **T. Maniv**, "Vortex states in 2D superconductor at high magnetic field in a periodic pinning potential", *Phys. Rev. B* **68** , 174507-16 (2003).
94. V. Zhuravlev and **T. Maniv**, "Latent heat of the vortex lattice melting in 2D superconductor at high magnetic field", *Phys. Rev. B* **69**, 024522-5 (2004).
95. **T. Maniv** , Yu. A. Bychkov , and I. D. Vagner, "Massive Spin Collective Mode in Quantum Hall Ferromagnet", *Phys. Rev. B* **69**, 1213041-4(R) (2004).
96. **T. Maniv** and Yu. A. Bychkov, "Long Range Coherent Manipulation of Nuclear Spins in Quantum Hall Ferromagnet", *HAIT Jour. Sci. Eng.* **1** , 220-234 (2004).
97. **T. Maniv**, V. Zhuravlev, J. Wosnitza and J. Hagel, "Irreversible Magnetization Deep in the Vortex-Liquid state of a 2D Superconductor at High Magnetic Fields" , *J. Phys.: Condens. Matter* **16**, L429-L435 (2004).
98. M.A.Itskovsky and **T. Maniv**, "De Haas-van Alphen effect in a two-dimensional anisotropic metal with Fermi energy near van Hove singularity", *Phys. Rev. B* **72**, 075124 (2005).
99. **T. Maniv** and V. Zhuravlev, "Vortex Dynamics and Superconducting Fluctuation Effects on Magneto-Oscillations in

- Extremely Type-II Layered Superconductors", *AIP Conf. Proc.*, **850**, 821 (2006).
100. V. Zhuravlev, and **T. Maniv**, "On the origin of high Smectic Fluidity of the Vortex Lattice in 2D superconductors", *Europhysics Letters*, **73**, 955-961 (2006).
101. **T. Maniv**, V. Zhuravlev, J. Wosnitza, O. Ignatchik, B. Bergk, and P.C. Canfield, "Broadening of the Superconducting Transition by Fluctuations in a 3D Metal at High Magnetic Fields", *Phys. Rev. B* **73**, 134521-7 (2006). Selected for Virtual Journal of Applications of Superconductivity **10**, issue 9 (2006).
102. **T. Maniv**, V. Zhuravlev, J. Wosnitza, O. Ignatchik and B. Bergk, "Strongly Type-II Superconductivity at High Magnetic Fields: Breakdown of Thermodynamic Scaling", *Chin. Jour. Phys.* **45**, 244 (2007).
103. **T. Maniv** and V. Zhuravlev, "Dimensionality driven Changeover to First-Order Superconducting Phase Transitions in the Pauli Paramagnetic limit" , *Phys. Rev. B* **77**, 134511-1-11 (2008).
104. M. A. Itskovsky, H. Cohen and **T. Maniv**, "Radative Interaction of a Focused Relativistic Electron Beam in Energy-Loss Spectroscopy of Nanoscopic Platelets", *Phys. Rev. B* **78** , 045419-1-11 (2008).
105. **T. Maniv** , V. Zhuravlev, and J. Wosnitza, "Discontinuous Superconducting Transitions in the Paramagnetic limit: a Non-Perturbative approach" , *Journal of Physics: Conference Series* **150**, 052151 (2009).
106. **T. Maniv**, B. Rosenstein, I. Shapiro and B.Ya. Shapiro, "Sliding Abrikosov vortex lattice in the presence of a regular array of columnar pinning centers: AC conductivity and criticality near the transition to a pinned state", *Phys. Rev. B* **80**, 134512 (2009).
107. V. Zhuravlev and **T. Maniv**, "Non-perturbative theory of type-II superconductivity in the presence of strong Pauli-paramagnetic effect", *Phys. Rev. B* **80**, 174520 (2009).

108. V. Zhuravlev and **T. Maniv**, “Double-Stage Continuous-discontinuous Superconducting Phase Transition in the Pauli Paramagnetic limit of a 3D superconductor: the  $\text{URu}_2\text{Si}_2$  case”, arXiv:0902.0438v1[cond-mat.supr-con], *European Physical Journal B* **73**, 347-351 (2010), (DOI: 10.1140/epjb/e2010-00012-y).
109. V. Zhuravlev, **T. Maniv** and J. Wosnitza, “Theory of Unusual Superconducting Phase Transitions in Heavy Fermion Metals at High Magnetic Fields”, *J. Low Temp. Phys.* **159**, 138 (2010) (DOI 10.1007/s10909-009-0111-9).
110. **T. Maniv**, B. Rosenstein, I. Shapiro, B.Ya. Shapiro, R.F. Hung, “Sliding Abrikosov vortex lattice in a superconductor with a regular array of artificial pinning centers: AC conductivity and criticality at small frequencies”, *Physica C* **470**, 744-746 (2010).
111. A. Maniv, **T. Maniv**, V. Zhuravlev, B. Bergk, J. Wosnitza, A. Kohler, G. Behr, P.C. Canfield, and J.E. Sonier, “Damping of dHvA oscillations and vortex-lattice disorder in the peak-effect region of strong type-II superconductors”, *Phys. Rev. B* **83**, 104505 (2011).
112. I. Carmeli, M. A. Itskovsky, Y. Kaufmann, Y. Shaked, S. Richter, **T. Maniv\***, and H. Cohen, “far-and near-field electron beam detection of hybrid cavity-plasmonic modes in gold microholes”, *Phys. Rev. B* **85**, 041405 (R) (2012).
113. V. Zhuravlev and **T. Maniv**, “Exact analytic Gorkov-Ginzburg-Landau theory of type-II superconductivity in the magnetoquantum oscillations limit”, *Phys. Rev. B* **85**, 104528 (2012).
114. A. Maniv, **T. Maniv**, V. Zhuravlev, B. Bergk, J. Wosnitza, P. C. Canfield, J. E. Sonier, “Order-disorder transition and magnetic quantum oscillations in the vortex state of strong type-II superconductors”, *Journal of Physics: Conference Series* **400** 022065 (2012).
115. **T. Maniv** and V. Zhuravlev, “Sweeping reciprocal vortex lattice across the Fermi surface, A new magneto-quantum oscillations

- effect in the superconducting state”, *Journal of Low Temperature Physics* 04/2012; 159(1):138-142 (2012).
116. B. Rosenstein, M. Lewkowicz and **T. Maniv**, "Chiral anomaly and strength of the electron-electron interaction in graphene", *Phys. Rev. Lett.* **110**, 066602 (2013).
117. R. Walther, I. Carmeli, R. Schneider, D. Gerthsen, K. Busch, C. Matyssek, Y. Kauffmann, A. Shvarzman, **T. Maniv**, S. Richter, H. Cohen, "Inter-Slit Coupling via Ultrafast Dynamics across Gold-Film Hole Arrays", *Journal of physical Chemistry C* **118** 20, 11043-11049 (2014).
118. **T. Maniv** and V. Zhuravlev, "Field-controlled conical intersections in the vortex lattice of quasi 2D pure strongly type-II superconductors at high magnetic fields", arXiv:1405.4973v1 [cond-mat.supr-con].
119. A. Maniv, V. Zhuravlev, **T. Maniv**, O. Ofer, R. Rommel, J. Müller, and J. E. Sonier, "Partially ordered vortex lattices in the high-field low-temperature mixed state of quasi-two-dimensional organic superconductors", *Phys. Rev. B* **91**, 134506 (2015).
120. R. Walther, S. Fritz, E. Muller, R. Schneider, D. Gerthsen, W. Sigle, **T. Maniv**, H. Cohen, C. Matyssek, and K. Busch, "Coupling of Surface-Plasmon-Polariton-Hybridized Cavity Modes between Submicron Slits in a Thin Gold Film", DOI: 10.1021/acsphotonics.6b00045, *ACS Photonics*, **3** (5), 836–843 (2016).
121. R. Walther, S. Fritz, E. Muller, R. Schneider, **T. Maniv**, H. Cohen, C. Matyssek, K. Busch, and D. Gerthsen, "Surface-plasmon-polariton hybridized cavity modes in submicrometer slits in a thin Au film", *Phys. Rev. B* **93**, 245417 (2016).
122. V. Zhuravlev, Wenye Duan, and **T. Maniv**, "Self-consistent Bogoliubov de Gennes theory of the vortex lattice state in a two-dimensional strongly type-II superconductor at high magnetic fields", *Phys. Rev. B* **95** 024502 (2017).
123. V. Zhuravlev, W. Duan and **T. Maniv**, "2D massless Dirac Fermi gas model of superconductivity in the surface state of a topological insulator at high magnetic fields", *Europhys. Lett.* **120** 27004(2017).

124. O. Godsi, G. Corem, Y. Alkoby, J. T. Cantin, R. V. Krems, M. F. Somers, J. Meyer, G.-Jan Kroes, **T. Maniv**, and G. Alexandrowicz, “A general method for controlling and resolving rotational orientation of molecules in molecule-surface collisions”, *Nature Communications* **8** 15357 (2017).
125. I. Litvin, Y. Alkoby, O. Godsi, G. Alexandrowicz and **T. Maniv**, “Parallel and anti-parallel echoes in beam spin echo experiments”, *Results in Physics* **12**, 381 (2019).
126. Y. Alkoby, H. Chadwick, O. Godsi, H. Labiad, M. Bergin, J. T. Cantin, I. Litvin, **T. Maniv** and G. Alexandrowicz, “Setting benchmarks for modelling gas-surface interactions using coherent control of rotational orientation states”, *Nature Communications*. **11** 3110 (2020).
127. H. Chadwick, Y. Alkoby, J. T. Cantin, D. Lindebaum, O. Godsi, **T. Maniv**, and G. Alexandrowicz, “Molecular spin echoes; multiple magnetic coherences in molecule surface scattering experiments”, *Physical Chemistry Chemical Physics* **23** 7673 (2021).
128. **T. Maniv** and V. Zhuravlev, “Superconducting fluctuations and giant negative magnetoresistance in a gate-voltage tuned two-dimensional electron system with strong spin-orbit impurity scattering”, *Phys. Rev. B* **104** 054503 (2021).
129. **T. Maniv** and V. Zhuravlev, “Field-induced boson insulating states in a 2D superconducting electron gas with strong spin-orbit scatterings”, *J. Phys.: Condensed Matter* **35** 055001 (2023).

## **Books**

"Recent Trends in the Theory of Physical Phenomena in High Magnetic Fields", edited by: I. D. Vagner, P. Wyder and T. Maniv, Kluwer Academic Publishers , 345 pages, Dordrecht , The Netherlands 2003.