Eran Maniv

19/12/2021 **Curriculum Vitae**

121 Sitvanit street, Ramat Raziel, Israel
Email: eranmaniv@bgu.ac.il

EDUCATION

Tel Aviv University

10/2012 – 11/2017 Direct Ph.D. of Physics for excelling students

10/2009 – 8/2012 B.A. in Physics, graduated with honors

EXPERIENCE

10/2021 – Present
Faculty Member (Ben-Gurion University)
Senior lecturer at the physics department

02/2018 – 08/2021
Research Scholar (UC Berkeley)
Post-Doc at the Analytis Lab

10/2011 – 11/2017
Research Assistant (Tel Aviv University)
Highly correlated electrons laboratory work, with guidance by Prof. Yoram Dagan

10/2012 – 11/2017
Teaching Assistant (Tel Aviv University)
Instructor in the 3rd year B.A. physics laboratory, Tel-Aviv University, school of physics and astronomy

CONFERENCES AND TALKS

2021 Invited oral presentation in Nano.IL Meeting, Jerusalem, Israel

2021 Invited oral presentation in the March Meeting of the American Physical Society

2020 Invited oral presentation in the SPIE Optics + Photonics conference, Digital Forum

2018 Oral presentation in the International Conference of Magnetism, San Francisco, Ca

2018 Oral presentation in the March Meeting of the American Physical Society, Los Angeles, Ca

2017 Oral presentation in the March Meeting of the American Physical Society, New Orleans, LA

2017 Invited oral presentation in the Fred Chaoul 11th Annual Nano Workshop, Dead sea, Israel

2016 Oral presentation in the 62nd Annual meeting of the Israel Physical Society, Tel-Aviv University, school of physics and astronomy

2016 Oral presentation in the Fall Meeting of the Material Research Society, Boston, MA

2016 Oral presentation in the UFOX Workshop – "Unveiling complex phenomena in Functional Oxides", University of Salerno (Fisciano)

2016 Oral presentation in the Tsinghua-TAU Joint Meeting "Physics at the Edge: From Topological Surfaces to Oxide Interfaces", Tel Aviv University, School of Physics and Astronomy

2015 Oral presentation in the March Meeting of the American Physical Society, San Antonio, TX

2015 Oral presentation in the Tel Aviv University – Freie Universität Berlin Joint Research Workshops on Spin-Orbit Materials, Tel Aviv University, School of Physics and Astronomy

2014 Oral presentation in the 60th Annual meeting of the Israel Physical Society, Ben-Gurion University of the Negev, Beer-Sheva

2014 Oral presentation in the Sackler Prize Symposium on Topological phases in condensed matter, Tel Aviv University, School of Physics and Astronomy

2013 Oral presentation in the 59th Annual meeting of the Israel Physical Society, Weizmann Institute of Science, Rehovot

2013 Oral presentation in the March Meeting of the American Physical Society, Baltimore, MD

FELLOWSHIPS AND AWARDS

2017-2019 ROTHSCHILD Postdoctoral Fellowship

2017 School of physics scholarship for excellence in research for Ph.D. students (DOTAN Research Excellence Award), Tel-Aviv University

2014 – 2016 BUCHMANN Scholarship Fund for excelling Ph.D. students

2016 School of physics scholarship for excellence in research for Ph.D. students (GETTI Experimental Excellence Award), Tel-Aviv University

2013 School of physics scholarship for excellence in research for Ph.D. students (HAYA ROZET Experimental Excellence Award), Tel-Aviv University

2013 Faculty of Exact Science Memorial Award for excelling students, Tel-Aviv University

2012 Dean Excellence Award, The Exact Science Faculty, Tel-Aviv University

2012 Award for participating in the "Excellence Program for 3rd year BA students", Tel-Aviv University

2011 Dean Excellence Award, The Exact Science Faculty, Tel-Aviv University

PATENT

2020 UCLBL-2019-114-2-US. Antiferromagnetic Memory Storage Devices from Magnetic Transition Metal Dichalcogenides. Inventors: J. G. Analytis, **E. Maniv**, N. L. Nair, S. Doyle and C. John. Filing Date: July 24, 2020.

2021 UCLBL-2022-013-01, US Provisional Application. Non-local Antiferromagnetic Memory Storage. Inventors: J. G. Analytis, S. C. Haley and **E. Maniv**. Filing Date: November 10, 2021.

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19/12/2021

List of Publications

2021 N. Maksimovic, D. H. Eilbott, T. Cookmeyer, F. Wan, J. Rusz, V. Nagarajan, S. C. Haley, **E. Maniv**, A. Gong, S. Faubel, I. M. Hayes, A. Bangura, J. Singleton, J. C. Palmstrom, L. Winter, R. McDonald, S. Jang, J. Gobbo, Y. Werman, P. M. Oppeneer, E. Altman, A. Lanzara, J. G. Analytis. Evidence for a delocalization quantum phase transition without symmetry breaking in $CeCoIn_5$. *Science,* eaaz4566 (2021).

2021 **E. Maniv**, R. A. Murphy, S. C. Haley, S. Doyle, C. John, A. Maniv, S. K. Ramakrishna, Y. L. Tang, P. Ercius, R. Ramesh, A. P. Reyes, J. R. Long and J. G. Analytis. Exchange bias due to coupling between coexisting antiferromagnetic and spin-glass orders. *Nature Physics,* 1-6 (2021).

2021 Y. Tserkovnyak, **E. Maniv** and J. G. Analytis. Collective spin dynamics under dissipative spin Hall torque. *Appl. Phys. Lett.* **118.3**, 032406 (2021).

2021 **E. Maniv**, N. L. Nair, S. C. Haley, S. Doyle, C. John, S. Cabrini, A. Maniv, S. K. Ramakrishna, Y. L. Tang, P. Ercius, R. Ramesh, Y. Tserkovnyak, A. P. Reyes and J. G. Analytis. Antiferromagnetic Switching Driven by the Collective Dynamics of a Coexisting Spin Glass. *Science Advances* ***7***, eabd8452 (2021).

2020 S. C. Haley, S. F. Weber, T. Cookmeyer, D. E. Parker, **E. Maniv**, N. Maksimovic, C. John, S. Doyle, A. Maniv, S. K. Ramakrishna, A. P. Reyes, J. Singleton, J. E. Moore, J. B. Neaton and J. G. Analytis. Half-magnetization plateau and the origin of threefold symmetry breaking in an electrically-switchable triangular antiferromagnet. *Phys. Rev. Research.* ***2,*** 043020 (2020).

2020 A. Little, C. Lee, C. John, S. Doyle, **E. Maniv**, N. L. Nair, W. Chen, D. Rees, J.W.F. Venderbos, R. M. Fernandes, J. G. Analytis and J. Orenstein. Three-state nematicity in the triangular lattice antiferromagnet $Fe_{1/3}NbS_2$. *Nature Materials,* 1-6 (2020).

2020 N. L. Nair, **E. Maniv**, C. John, S. Doyle, J. Orenstein and J. G. Analytis. Electrical switching in a magnetically intercalated transition metal dichalcogenide. **N. L. Nair and E. Maniv contributed equally to the paper.** *Nature Materials* **19**, 153-157 (2020).

2019 M. Mograbi, **E. Maniv**, P. K. Rout, D. Graf, J. -H Park and Y. Dagan. Vortex excitations in the insulating state of an oxide interface. *Phys. Rev. B.* **99**, 094507 (2019).

2017 P. K. Rout, **E. Maniv** and Y. Dagan. Link between the superconducting dome and spin-orbit interaction in (111) $LaAlO_3/SrTiO_3$ interface. **P. K. Rout and E. Maniv contributed equally to the paper.** *Phys. Rev. Lett.* **119**, 237002 (2017).

2017 A.Ron, A.Hevroni, **E.Maniv**, M.Mograbi, L.Jin, C.-L.Jia, K.W.Urban, G.Markovich, and Y.Dagan. Surface catalysis in solution for tunable atomically-sharp epitaxial interfaces. *Adv. Mater. Interfaces*, 1700688 (2017).

2017 P. K. Rout, I. Agireen, **E. Maniv**, M. Goldstein and Y. Dagan. Six-fold crystalline anisotropic magnetoresistance in the (111) $LaAlO_3/SrTiO_3$ oxide interface. *Phys. Rev. B Rapid Communications* **95**, 241107 (2017).

2017 **E. Maniv**, Y. Dagan, and M. Goldstein. Correlation-Induced Band Competition in $SrTiO_3/LaAlO_3$. *MRS Advances*, pp. 1–6. doi: 10.1557/adv.2017.92 (2017).

2016 **E.Maniv**, A.Ron, M.Goldstein, A.Palevski and Y.Dagan. Tunneling into a quantum confinement created by a single-step nano-lithography of conducting oxide interfaces. *Phys. Rev. B* **94**, 045120 (2016).

2015 **E.Maniv**, M. Ben Shalom, A.Ron, M. Mograbi, A.Palevski, M.Goldstein and Y.Dagan. Strong correlations elucidate the electronic structure and phase-diagram of $LaAlO_3/SrTiO_3$ interface. *Nature Communications* **6**, (2015).

2014 A.Ron, **E.Maniv**, D.Graf, J.-H. Park and Y.Dagan. Anomalous magnetic ground state in an $LaAlO_3/SrTiO_3$ interface probed by transport through nanowires. *Phys. Rev. Lett.* **113**, 216801 (2014).

2013 E.Lahoud, **E.Maniv**, M.Petrushevsky, M.Naamneh, A.Ribak, S.Wiedmann, L.Petaccia, Z.Salman , K.B.Chashka, A.Kanigel, and Y.Dagan. Evolution of the Fermi Surface of a Doped Topological Insulator with Carrier Concentration. *Phys. Rev. B* **88**, 195107 (2013). **E.Maniv and E.Lahoud contributed equally to the paper.**

2012 M.Petrushevsky, E.Lahoud, A.Ron, **E.Maniv**, I.Diamant, I.Neder, S.Wiedmann, V.K.Guduru, F.Chiappini, U.Zeitler, J.C.Maan, K.Chashka, A.Kanigel, and Y.Dagan. Probing the surface states in Bi_2Se_3 using the Shubnikov–de Haas effect. *Phys. Rev. B* **86**, 045131 (2012).