# Curriculum Vitae

**Name:** Or Hen
**Date and place of birth:** 17-Dec-1987, Jerusalem, Israel.
**Phone Number:** +1 857 268 8242
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**Email:** hen@mit.edu

## Education:

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|---|---|---|---|
| **2015** | Ph.D. | Physics | Tel-Aviv University |
| **2010** | B.A. | Physics | Hebrew University |
| **2010** | B.Sc. | Computer Engineering | Hebrew University |

## Professional Experience:

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|---|---|
| Associate Professor, Physics Department, MIT | **2021 - Present** |
| Assistant Professor, Physics Department, MIT | **2017 - 2021** |
| Pappalardo Post-Doctoral Fellow, MIT | **2015 - 2017** |
| Senior Academic Officer (Experimental Physics), IDF General Corps | **2009 - 2015** |
| Provisioning engineer, FTL lab, Intel | **2007 - 2009** |

## Fellowships and Awards:

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| Class of 1956 Career Development Professorship Chair (MIT) | **2021 - 2024** |
| Alfred P. Sloan Research Fellow | **2020** |
| American Physical Society (APS) Stuart J. Freedman Award | **2019** |
| U.S. DOE Office of Science Early Career Award | **2019** |
| IUPAP Young Scientist Prize in Nuclear Physics | **2019** |
| NEC Corporation Fund Award | **2019** |
| Guido Altarelli Award | **2018** |
| Amar G. Bose Fellow | **2018** |
| Intensity Frontier Fellow, Fermi National Accelerator Laboratory (FANL) | **2016 - 2018** |
| Jefferson Science Associates (JSA) Graduate Thesis Prize | **2016** |
| Israeli Physical Society (IPS) prize for graduate research in Experimental Physics | **2015** |
| Pappalardo Fellow, MIT | **2015 - 2017** |
| Rothschild Fellow, 'Yad-Hanadiv' foundation | **2015 - 2016** |
| Amnon Pazi Award, Israeli Council for Higher Education | **2013** |
| Juda Eisenberg Award, Tel-Aviv University | **2011** |

**Talks:** 149 oral presentations given in the form of invited & plenary talks (92) and seminars & colloquia (57), see full list below.

## Professional Development:

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| Personal Executive Training, MIT via Keystone Partners | **2022** |

Leadership & Management Training, MIT via HFP Consulting **2019**

## Professional Activities:

**Community Service & Outreach**

- Funding Agency Reviewer: NSF, DOE, BSF, ISF, CSF, Pazi Foundation, and others
- Member, DOE-HEP Early Career Award Review Super Panel **Spring '22**
- Member, DOE-HEP Neutrino Theory Network (NTN) Review Panel **Spring '22**
- Co-Chair, National Nuclear Physics Summer Scholl (NNPSS) **Summer '22**
- Member, APS Committee on Scientific Meetings **2022 – 2024**
- Co-convener, Electron-Ion Collider Users Community Yellow-Report (Working Group on Diffractive and Tagged Processes) **2020 – 2021**
- Member, APS New England Section (NES) Executive Committee **2020 – 2023**
- Member, APS Stuart J. Freedman Award selection committee **2020**
- Member, APS Division of Nuclear Physics (DNP) Program Committee **2017 – 2019; Fall '21**
- Member, Jefferson Lab Users Group Board of Directors **2017 – 2019**
- Member, Joint Institute for Nuclear Research Baryonic Matter Executive Council **2019 – 2021**
- Member, US Nuclear Physics 'Day on the Hill' advocacy day committee **2019**
- Scientific advisor, Nova documentary on the physics of atoms and nuclei **2018**
- Reviewer, APS Conference Experience for Undergraduates (CUE) program **Multiple Years**
- MIT representative, APS Conference for Undergraduate Women in Physics (CUWiP) **Multiple Years**

**Journal Editor & Reviewer**

- Journal Reviewer: PRL, Nature, Science, PLB, PRD, PRC, NIM, EPJA and others
- Guest Editor, MIN-A Special Issue on "Detector Technologies for the Electron-Ion Collider" **2022**
- Invited Editor, EPJA Topical Issue on "Short Range Correlations" **2022**
- Editor, Modern Physics Letters A (MPLA) **2020 – present**
- Editor, International Journal of Modern Physics A (IJMPA) **2020 – present**
- Associate Editor and Editorial Board Member for Nuclear Physics, Frontiers in Physics **2022 – present**
- Review Editor and Editorial Board Member for Nuclear Physics, Frontiers in Physics **2020 – 2022**

Conference Organization

- Member, organizing committee, workshop on Opportunities with JLab Energy and Luminosity Upgrade (ECT*, Trento, Italy) **Sep. '22**
- Chair, local organizing committee, APS Division of Nuclear Physics (APS-DNP) Fall Meeting (Boston, MA) **Oct. '21**
- Co-Chair, Symposium on QCD and Nuclei (Boston, MA) **Oct. '21**
- Co-Chair, 3rd International Workshop on Quantitative Challenges in EMC and SRC Research (Newport News, VA) **March '21**
- Member, organizing committee, 4th International Workshop on Quasi-Free Scattering with Radioactive-Ion Beams (QFS-RB19) (Maresias, Brazil) **Oct. '19**
- Chair, 2nd International Workshop on Quantitative Challenges in EMC and SRC Research (Cambridge, MA) **March '19**
- Member, organizing committee, International Workshop on (e,e'p) processes (Bled, Slovenia) **July '17**
- Co-chair, International Workshop on Tabletop Experiments with Skyscraper Reach (Cambridge, MA) **Aug. '17**
- Chair, International Workshop on Quantitative Challenges in EMC and SRC Research (Cambridge, MA) **Dec. '16**
- Chair, International Conference, Frontiers in Photonuclear Science (Paphos, Cyprus) **Oct. '15**
- Member, organizing committee, International Workshop on QCD in the Nuclear Medium (Tel-Aviv, Israel) **June '13**

Experiment Leadership

<u>Brookhaven National Lab and Thomas Jefferson National Lab:</u>

- Steering Committee Member, EIC Detector-1 **May '22 - Present**
- Steering Committee Member, EIC Comprehensive Chromodynamics Experiment (ECCE) **Feb. '21 – May '22**

<u>Thomas Jefferson National Lab (spokesperson):</u>

- Data-Mining Collaboration **2017 – 2020**
- E12-20-005: Precision Measurements of A=3 Nuclei in CLAS12
- E12-19-003: Studying Short-Range Correlations with Real Photon Beams at GlueX
- E12-17-006A: Exclusive Studies of Short-Range Correlations in Nuclei using CLAS12
- E12-17-006: Electrons for Neutrinos: Addressing Critical Neutrino-Nucleus Issues
- E12-17-005: CaFe Experiment: Short-Range Pairing Mechanisms in Heavy Nuclei
- E12-11-003A: In Medium Proton Structure function, SRC, and the EMC effect
- E12-14-011: Proton and Neutron Momentum Distribution in A=3 Nuclei
- E12-11-107: In Medium Nucleon Structure functions, SRC, and the EMC effect

Joint Institute for Nuclear Research (spokesperson):

- Study of Short-Range Correlation in Inverse Kinematics at BM@N

GSI Helmholtz Centre for Heavy Ion Research (spokesperson):

- First characterization of Short-Range Correlations in exotic nuclei at R3B

**Collaboration Membership**

- ECCE consortium, Electron Ion Collider Users Group,
- Jefferson Lab Users Group, Hall A, Hall C, CLAS, CLAS12, and Data-mining,
- Electrons-for-Neutrinos (founding member),
- MicroBooNE (Fermilab),
- BM@N (JINR),
- $R^3B$ (GSI),
- GENIE.

**Academic Service**

MIT / Institute:

- Advisor, freshman academic advising program — **Fall '19 – Spring '21** **[Also confirmed for '22/'23]**
- Advisor, 8.01 advising program — **Fall '20**

MIT / Physics Department:

- Member, faculty search committee (NuPaX division) — **Fall '21 – Spring '22**
- Faculty liaison, departmental postdoc association — **Spring '19 – Present**
- Chair and section lead for quantum mechanics, written graduate qualifying exam committee — **Spring '22 – Present**
- Member and section lead for quantum mechanics, written graduate qualifying exam committee — **Fall '18 – IAP '22**
- Member, strategic plan committee (NuPaX Division) — **Spring '21 – Fall '21**
- Interviewer, graduate admissions (NuPaX division) — **IAP '22**
- Chair, oral graduate qualifying exam committee (NuPaX Division) — **Fall '20 – Spring '21**
- Member, oral graduate qualifying exam committee (NuPaX Division) — **Fall '18 – Spring '20**
- Advisor, undergraduate and graduate students academic advising — **Fall '17 – Present**
- Member, physics@mit editorial board — **Spring '19 – Spring '21**
- Member, Graduate thesis committee, Yimin Wang — **Fall '20 – Fall '21**
- Member, Graduate thesis committee, Julian Picard — **Spring '21 – Fall '21**
- Organizer, Faculty lunchtime science meeting series — **Spring '20 – Spring '22**

MIT / Laboratory for Nuclear Science (LNS):

- Co-chair, taskforce on diversity equity and inclusion — **Summer '20 – Fall '22**
- Member, COVID-19 monitoring & compliance committee — **Summer '20 – Spring '21**

- Chair, colloquium committee — **Spring ’20 – Present**
- Member, colloquium committee — **Fall ‘18 – Fall ‘19**
- Member, lunchtime seminar committee — **Fall ‘18 – Spring ‘20**

MIT External:

- Member, William & Mary Collage graduate thesis examination committee, Luis Zazueta — **Spring ’22**
- Member, Hebrew University graduate thesis committee, Saar Beck — **Spring ’20 – Present**

Teaching

- MIT 8.01, Classical Mechanics — **Fall ‘17, ’19, ‘20**
- MIT 8.711, Graduate Nuclear Physics — **Spring ‘18, ‘19, ’20, ‘21**
- MIT 8.13, Junior Physics Lab — **Fall ‘18**
- Hebrew University 77613, Simulation of Transport of Particles and Radiation — **Fall ‘08**
- Lecturer, STFC summer school Summer School (Sheffield, UK), course on “Hadronic Physics” — **March ‘22**
- Lecturer, 19th CNS International Summer School (Tokyo Japan), course on “Nuclear correlations via electron beams” — **Aug. ‘20**
- Lecturer, 32nd HUGS summer school program (Newport News VA), course on “Long- and short-range nuclear structure” — **July ‘17**

## Mentoring:

Graduate Students

Current:

Mr. Andrew Denniston — **Sep. ‘18 – Present**

Mr. Jackson Pybus — **Sep. ‘18 – Present**
[JLab EIC Center Fellow ’20, ‘21]

Ms. Hang Qi — **Sep. ’20 – Present**
[MIT Presidential Fellow ‘20]

Ms. Allen Magdelena — **Jan. ‘21 – Present**
[NSF Fellow; Performing Medical physics research in collaboration with MGH & Harvard]

Ms. Natalie Wright — **Sep. ’21 – Present**

Mr. Jason Phelan — **Sep. ’21 – Present**

Former:

Dr. Efrain Segarra — **July ‘16 – June ‘22**
Current Position: Postdoctoral Fellow, Paul Scherrer Institute (PSI).
Dissertation: Disentangling the EMC effect: from free to bound nucleon structure
[NSF Fellow; Ford Foundation Fellow]

Dr. Afroditi Papadopoulou — **July ‘16 – April ‘22**
Current Position: M.G. Mayer Fellow, Argonne National Lab.
Dissertation: Lepton-Nucleus Scattering Measurements for

Neutrino Interactions and Oscillations
[Lourie Fellow '16; Henry Kendall (1955) Fellow '16; URA Fellow '17, '19, '20; George and Marie Vergottis Fellow '21]

Dr. Reynier Cruz Torres **Sep. '15 – April '20**
Current Position: Postdoc, UC Berkeley.
Dissertation: Two-Nucleon Short-Range Correlations in Light Nuclei
[MIT Sergio Vazquez Prize; JSA Graduate Fellow]

Dr. Barak Schmookler **Sep. '15 – July '18**
Current Position: EIC Project Scientist, UC Riverside and UC EIC Consortium (following postdoc at CFNS and Stony Brook University)
Dissertation: Nucleon Structure and its Modification in Nuclei

Dr. Longwu Ou **Sep. '15 – Aug. '18**
Current Position: Senior AI Research Scientist, Lightelligence
Dissertation: Precision measurements of electron-proton elastic scattering cross sections at large $Q^2$

Postdoctoral Fellows

Current:

Dr. Tyler Kutz **Dec. '19 – Present**
[Zuckerman Fellow]

Dr. Julian Kahlbow **Jan. '20 – Present**

Dr. Justin Estee **Oct. '20 – Present**

Dr. Igor Korover **Nov. '20 – Present**
[CFNS Fellow]

Dr. Joshua Barrow **June '21 – Present**
[Zuckerman Fellow]

Former:

Dr. Nathaly Santiesteban — Researcher, University of New Hampshire **Oct. '20 – Jan. '22**
[MIT School of Science Fellow]

Dr. Florian Hauenstein — Staff Scientists, Thomas Jefferson National Accelerator Facility **Sep. '19 – Oct. '21**
[JSA Promising Young Scientist Award]

Dr. Adi Ashkenazi — Assistant Professor (senior lecturer), Tel-Aviv University **Sep. '17 – Oct. '20**
[G. Altarelli Award; Tollestrup Award; FNAL Intensity Frontier Fellow; National Postdoctoral Award for Advancing Women in Science; Zuckerman STEM Leadership Fellow]

Dr. Holly Szumila-Vance — Staff Scientists, Thomas Jefferson National Accelerator Facility **Jan. '20 – June '20**

Dr. Dien Nguyen — Nathan Isgur Fellow, Thomas Jefferson National Accelerator Facility **March '19 – June '20**

Dr. Axel Schmidt — Assistant Professor, George Washington University **Sep. '16 – Dec. '19**

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| | Dr. Maria Patsyuk | Staff Scientists, Joint Institute for Nuclear Research | **June '17 – June '19** |
| | Dr. Georgios Laskaris | Consultant, Ab-Initio Software | **Sep. '16 – May '18** |
| Post-baccalaureate researchers | Mr. Alex Kiral<br>[Paglia Research Fellow] | Graduate student, Stanford (starting Fall '22) | **Aug. '20 – Aug. '22** |
| | Ms. Natalie Wright | Graduate student, MIT | **June '20 – Aug. '21** |
| | Mr. Adin Hrnjic | Graduate student, UIUC | **June '18 – May '19** |
| Visiting Scientists | Dr. Ehoud Pazy | IAEC Israel | **Oct. '21 – Sep. '22** |
| | Dr. Sharon Mey-Tal Beck | IAEC Israel | **Sep. '17 – Aug. '18** |
| | Dr. Arie Beck | IAEC Israel | **Sep. '17 – Aug. '18** |
| | Prof. Taofeng Weng | Beihang University, China | **Sep. '16 – Aug. '17** |
| Undergrad Students (MIT UROP Program) | Ms. Anjali Nambrath<br>Dissertation: Benchmarking of neutrino energy reconstruction methods using electron-deuterium scattering data<br>[APS CEU Fellowship; Paul E. Gray (1954) Endowed Fund for UROP project; Fulbright fellow (India); MIT Laya W. Wiesner Award, Order of the Lepton Award, and Malcolm Cotton Brown Awards; Phi Beta Kappa Member] | Graduate student, UC Berkley | **Fall '17 – Fall '18; Spring '19 – Spring '21** |
| | Mr. Oluwaseun Ogunde | | **IAP '18; Summer '18; Spring '20 – Fall '21** |
| | Mr. Samuel Solomon<br>[APS CEU Fellowship; 2020 MIT Chemistry Department Award for outstanding research achievements] | Graduate student, Caltech | **Spring '19 – Spring '20** |
| | Mr. Hector Iglesias | Graduate student, Rice University | **Fall '19 – Spring '20** |
| | Mr. Adin Hrnjic | Graduate student, UIUC | **Summer '16 – Spring '18** |
| | Mr. Connor Chung | | **IAP '17 – May '17** |
| | Mr. Sean Gloumeau | EMJMD scholar, European Master program in Embedded Computing Systems | **Summer '17 – IAP '18** |
| | Mr. Ting-Chun Lin | | **Fall '17 – Spring '19** |
| | Ms. Kirsten Surrao<br>[APS CEU Fellowship] | Graduate student, Columbia University | **Fall '17 – Summer '18** |
| | Mr. Joseph Iosue | Graduate student, University of Maryland | **Fall '17 – Fall '18** |
| | Mr. Yong-Hui Lim | | **Fall '17 – Spring '18** |

Ms. Peninah Levine Graduate student, MIT **Fall ‘18 – Summer ‘19**
[APS CEU Fellowship]

Mr. Adrian Silva **Fall ‘17 – Fall ‘18**
[APS CEU Fellowship; Paul E. Gray (1954)
Endowed Fund for UROP project]

# Selected Publications – Or Hen

Lists publications that I co-authored and report on work led / co-led by myself and my group. This list does not include >50 additional 'collaboration publications' that I co-authored but did not make a direct and significant enough contribution too in order to be included in the list below.

**Forthcoming commissioned articles:**

62. **"Short-Ranged Nucleon-Nucleon Correlations"**
*O. Hen*
Physics Reports (Ed. M.J. Ramsey-Musolf), to be submitted in late 2022.

61. **"The Nuclear EMC Effect: Current status and future perspectives"**
E.P. Segarra, F. Hauenstein, A. Schmidt and *O. Hen*.
Reports on Progress in Physics (Ed. G. Baym), to be submitted in late 2022.

**Under collaboration review:**

[lists drafted manuscripts that are undergoing collaboration review for journal submission. Latest drafts are available for reviews at: www.hen-lab.com/internaldrafts]

60. **"Double-Differential Kinematic Imbalance Measurement in Quasielastic-Like Ar($\nu_\mu$,$\mu$p) Reactions with MicroBooNE"**
P. Abratenko et al. (MicroBooNE Collaboration).
Based on analysis lead by A. Papadopoulou (MIT), A. Ashkenazi (TAU), and *O. Hen* (MIT).

59. **"Nuclear PDFs and the Universal Modification of Short-Range Correlated Nucleon Pairs"**
A.W. Denniston, T. Jezo, A. Kusina, P. Duwentaster, *O. Hen*, T.J. Hobbs, C. Keppel, M. Klasen, K. Kovarik, A. Kusina, J.G. Morfin, M.K. Muzakka, F.I. Olness, J.F. Owens, P. Risse, I. Schienbeinm and J.Y. Yu.

58. **ECCE publication series for NIM-A special issue on "Detectors for the Electron-Ion Collider"**

- "Design of the ECCE Detector for the Electron Ion Collider"
- "Design and Simulated Performance of Calorimetry Systems for the ECCE Detector at the Electron Ion Collider"
- "Design and Simulated Performance of Tracking Systems for the ECCE Detector at the Electron Ion Collider"
- "AI-assisted Optimization of the ECCE Tracking System at the Electron Ion Collider" [arXiv: 2205.09185]
- "Deep Learning based Muon Identification with the ECCE Detector at the Electron Ion Collider"
- "Scientific Computing Plan for the ECCE Detector at the Electron Ion Collider" [arXiv: 2205.08607]
- "Study of Jet Measurements with the ECCE Detector at the Electron Ion Collider"
- "Simulation study for Exclusive, Diffractive, and Tagged Reactions Measurements with the ECCE Detector at the Electron Ion Collider"
- "Open Heavy Flavor Studies with the ECCE Detector at the Electron Ion Collider"
- "Exclusive J/ψ detection and physics with the ECCE Detector at the Electron Ion Collider"
- "Diffractive heavy vector-meson production off Nuclei with the ECCE Detector at the Electron Ion Collider"
- "Sensitivity Studies for Single Hadron Transverse Single Spin Asymmetry Measurements with the ECCE Detector at the Electron Ion Collider"
- "Evaluation of Longitudinal Double-Spin Asymmetry Measurements in Semi-Inclusive Deep-Inelastic Scattering from the Proton with the ECCE Detector at the Electron Ion Collider"

- "Evaluation of Inclusive DIS measurements with the ECCE Detector at the Electron Ion Collider"
- "Semi-Inclusive DIS kinematic reconstruction with the ECCE Detector at the Electron Ion Collider"

**Submitted for publication:**

[lists papers that are undergoing peer-review for journal publication. Once published, the journal reference will be updated at: www.hen-lab.com/publications]

57. **"Correlation domains in atomic nuclei"**
I. Korover, A.W. Denniston, A. Kiral, A. Schmidt, A. Lovato, N. Rocco, L.B. Weinstein, E. Piasetzky, and *O. Hen* et al. (CLAS Collaboration).
Corresponding author: O. Hen.

56. **"Nucleon off-shell structure and the free neutron valence structure from A=3 inclusive electron scattering measurements"**
E.P. Segarra, J.R. Pybus, F. Hauenstein, T. Kutz, D.W. Higinbotham, G.A. Miller, E. Piasetzky, A. Schmidt, M. Strikman, L.B. Weinstein, and *O. Hen*.
**arXiv: 2104.07130**
Corresponding author: O. Hen.

55. **"Transport Estimations of Final State Interaction Effects on Short–range Correlation Studies Using the (e,e'p) and (e,e'pp) Reactions"**
N. Wright, A. Papadopoulou, J.R. Pybus, S. Gardiner, M. Roda, F. Hauenstein, A. Ashkenazi, L. Weinstein, A. Schmidt, E. Piasetzky, and *O. Hen*.
**arXiv: 2104.05090**
Corresponding author: O. Hen.

54. **"Science Requirements and Detector Concepts for the Electron-Ion Collider: EIC Yellow Report"**
R. Abdul Khalek et al. (EIC Users Community)
**arXiv: 2103.05419**

**Published:**

53. **"Search for a bound Di-neutron by comparing $^3$He(e,e'p)d and $^3$H(e,e'p)X measurements"**
D. Nguyen*, C. Neuburger*, R. Cruz-Torres, A. Schmidt, D.W. Higinbotham, J. Kahlbow, P. Monaghan, E. Piasetzky, and *O. Hen*.
**Phys. Lett. B, In-Print (2022). arXiv: 2109.14524**
*Equal Contribution. Corresponding author: O. Hen.

52. **"Measuring Recoiling Nucleons from the Nucleus with the Electron Ion Collider"**
F. Hauenstein, A. Jentsch, J. R. Pybus A. Kiral, M. D. Baker, Y. Furletova, *O. Hen*, D.W. Higinbotham, C. Hyde, V. Morozov, D. Romanov, and L.B. Weinstein.
**Phys. Rev. C 105, 034001 (2022). arXiv: 2109.09509**

51. **"Electron Beam Energy Reconstruction for Neutrino Oscillation Measurements"**
M. Khachatryan*, A. Papadopolou*, A. Ashkenazi, F. Hauenstein, A. Nambrath, A. Hrnjic, L.B. Weinstein, and *O. Hen* et al. (CLAS and e4$\nu$ Collaborations).
**Nature 599, 565 (2021).**
*Equal Contribution by MIT and ODU students.
Featured in Nature 'News and Views': N. Rocco, Nature 599, 560 (2021).

50. **"Unperturbed inverse kinematics nucleon knockout measurements with a carbon beam"**
M. Patsyuk, J. Kahlbow, G. Laskaris, V. Lenivenko, and E. P. Segarra et al. (BM@N Collaboration).
**Nature Physics 17, 693 (2021).**
Corresponding author: O. Hen.
Featured in Nature Physics 'News and Views': J. Ryckebusch, Nature Physics 17, 667 (2021).

49. **"Many-Body Factorization and Position-Momentum Equivalence of Nuclear Short-Range Correlations"**
R. Cruz-Torres, D. Lonardoni, R. Weiss, N. Barnea, D.W. Higinbotham, E. Piasetzky, A. Schmidt, L.B. Weinstein, R.B. Wiringa, and *O. Hen*.
**Nature Physics 17, 306 (2021).**
Corresponding author: O. Hen.
Featured in Nature Physics 'News and Views': M. Urban, Nature Physics 17, 294 (2021).

48. **"From Nuclear Clusters to Neutron Stars"**
*O. Hen*.
**Science 371, 232 (2021).**
Commissioned commentary.

47. **"Neutron Spin Structure from e-$^3$He Scattering with Double Spectator Tagging at the Electron-Ion Collider"**
I. Friscic, D. Nguyen, J. R. Pybus, A. Jentsch, E.P. Segarra, M.D. Baker, *O. Hen*, D.W. Higinbotham, R. Milner, A.S. Tadepalli, Z. Tu, and J. Rittenhouse West.
**Phys. Lett. B 823, 136726 (2021).**

46. **"$^{12}$C(e,e'pn) Measurements of Short Range Correlations in the Tensor-to-Scalar Interaction Transition Region"**
I. Korover, J. R. Pybus, A. Schmidt, F. Hauenstein, M. Duer, E. Piasetzky, L.B. Weinstein, and *O. Hen* et al. (CLAS Collaboration).
**Phys. Lett. B 820, 136523 (2021).**
Corresponding author: O. Hen.

45. **"Extracting the number of short-range correlated nucleon pairs from inclusive electron scattering data"**
R. Weiss*, A.W. Denniston*, J.R. Pybus, E. Piasetzky, A. Schmidt, L.B. Weinstein, *O. Hen*, and N. Barnea.
**Phys. Rev. C Lett. 103, L031301 (2021).**
*Equal Contribution.

44. **"Short-Range Correlations and the Nuclear EMC Effect in Deuterium and Helium-3"**
E.P. Segarra, J.R. Pybus, F. Hauenstein, D.W. Higinbotham, G.A. Miller, E. Piasetzky, A. Schmidt, M. Strikman, L.B. Weinstein, and *O. Hen*.
**Phys. Rev. Research 3, 023240 (2021).**
Corresponding author: O. Hen.

43. **"Inclusive Electron Scattering and the GENIE Neutrino Interactions Event Generator"**
A. Papadopolou, A. Ashkenazi, S. Gardiner, M. Betancourt, S. Dytman, L.B. Weinstein, E. Pasetzky, F. Hauenstein, M. Khachatryan, S. Dolan, G. Megias, and O. Hen.
**Phys. Rev. D 103, 113003 (2021).**

42. **"nCTEQ15HIX: Extending nPDF Analyses into the High-x Region with New Jefferson Lab Data"**
E.P. Segarra, T. Jezo, A. Accardi, P. Duwentaster, *O. Hen*, T.J. Hobbs, C. Keppel, M. Klasen, K. Kovarik, A. Kusina, J.G. Morfin, M.K. Muzakka, F.I. Olness, I. Schienbeinm and J.Y. Yu.
**Phys. Rev. D 103, 114015 (2021).**

41. **"A 90º bend curved light-guide for TOF scintillating detectors"**
M. Olivenboim, L. Burshtein, A.W. Denniston, *O. Hen*, J. Kahlbow, S. May-Tal Beck, E. Piasetzky, E.P Segarra, T. Shapira, and S. Segev.
**Nucl. Instrum. Meth. A 1018, 165825 (2021).**

40. **"From Quarks to Nuclei: Short Range Correlations Studies Across the Globe"**
F. Hauenstein, J. Kahlbow and *O. Hen*.
**Nuclear Physics News 31, 19 (2021).**
Commissioned feature article.

39. **"Probing the core of the strong nuclear interaction"**
A. Schmidt et al. (CLAS Collaboration).
**Nature 578, 540 (2020).**
Corresponding author: O. Hen.
Featured in Nature 'News and Views': A. Gade, Nature 578, 524 (2020).

38. **"First measurement of differential charged current quasielastic–like $\nu_\mu$–argon scattering cross-sections using the MicroBooNE detector"**
P. Abratenko et al. (MicroBooNE Collaboration).
**Phys. Rev. Lett. 125, 201803 (2020).**
Based on analysis lead by A. Papadopoulou (MIT), E.O. Cohen (TAU), A. Ashkenazi (MIT), E. Piasetzky (TAU), and *O. Hen* (MIT).

37. **"Probing few-body nuclear dynamics via $^3$H and $^3$He (e,e′p)pn cross-section measurements"**
R. Cruz-Torres, D. Nguyen, F. Hauenstein, and A. Schmidt et al. (Jefferson Lab Tritium Collaboration).
**Phys. Rev. Lett. 124, 212501 (2020). [Editor's suggestion]**
Corresponding author: O. Hen.

36. **"Neutron valence structure from nuclear deep inelastic scattering"**
E.P. Segarra, A. Schmidt, T. Kutz, D.W. Higinbotham, E. Piasetzky, M. Strikman, L.B. Weinstein, and *O. Hen*
**Phys. Rev. Lett. 124, 092002 (2020).**
Corresponding author: O. Hen.

35. **"Generalized Contact Formalism Analysis of the $^4$He(e,e′pN) Reaction"**
J.R. Pybus, I. Korover, R. Weiss, A. Schmidt, N. Barnea, D.W. Higinbotham, E. Piasetzky, M. Strikman, L.B. Weinstein, and *O. Hen*.
**Phys. Lett. B 805, 135429 (2020).**
Corresponding author: O. Hen.

34. **"Probing short-range correlations in the deuteron via incoherent diffractive J/ψ production with spectator tagging at the EIC"**
Z. Tu, A. Jentsch, M. Baker, L. Zheng, J.-H. Lee, R. Venugopalan, *O. Hen*, D. Higinbotham, E.C. Aschenauer, T. Ullrich.
**Phys. Lett. B 811, 135877 (2020).**

33. **"Laser Calibration System for Time of Flight Scintillator Arrays"**
A.W. Denniston, S. May-Tal Beck, and P. Toledo et al.
**Nucl. Instrum. Meth. A 973, 164177 (2020).**

32. **"The CLAS12 Backward Angle Neutron Detector (BAND)"**
E.P. Segarra, F. Hauenstein, and A. Schmidt et al.
**Nucl. Instrum. Meth. A 978, 164356 (2020).**

31. **"The CLAS12 Spectrometer at Jefferson Laboratory"**
V.D. Burkert et al (CLAS Collaboration).
**Nucl. Instrum. Meth. A 959, 163419 (2020).**
Presents the BAND detector whose R&D and construction was led by my MIT group.

30. **"Modified Structure of Protons and Neutrons in Correlated Pairs"**
B. Schmookler, M. Duer, A. Schmidt and *O. Hen* et al. (CLAS Collaboration).
**Nature 566, 354 (2019).**
Corresponding author: O. Hen.
Featured in Nature 'News and Views': G. Feldman, Nature 566, 332 (2019).

29. **"Direct Observation of Proton-Neutron Short-Range Correlation Dominance in Heavy Nuclei"**
M. Duer, A. Schmidt and J. Pybus et al. (CLAS Collaboration).
**Phys. Rev. Lett. 122, 172502 (2019).**
Corresponding author: O. Hen.

28. **"Nucleon-nucleon correlations and the single-particle strength in atomic nuclei"**
S. Paschalis, M. Petri, A.O. Macchiavelli, *O. Hen*, and E. Piasetzky.
**Phys. Lett. B 800, 135110 (2019).**

27. **"Comparing proton momentum distributions in A = 2 and 3 nuclei via $^{2}$H $^{3}$H and $^{3}$He (e, e′p) measurements"**
R. Cruz-Torres et al. (Jefferson Lab Tritium Collaboration).
**Phys. Lett. B 797, 134890 (2019).**
Corresponding author: O. Hen.

26. **"Can long-range nuclear properties Be influenced by short range interactions? A chiral dynamics estimate"**
G.A. Miller, A. Beck, S. May-Tal Beck, L.B. Weinstein, E. Piasetzky and *O. Hen*.
**Phys. Lett. B 793, 360 (2019).**

25. **"Energy and momentum dependence of nuclear short-range correlations - Spectral function, exclusive scattering experiments and the contact formalism"**
R. Weiss, I. Korover, E. Piasetzky *O. Hen*, and N. Barnea.
**Phys. Lett. B 791, 242 (2019).**

24. **"Measurement of Nuclear Transparency Ratios for Protons and Neutrons"**
M. Duer and *O. Hen* et al. (CLAS Collaboration).
**Phys. Lett. B 797, 134792 (2019).**
Corresponding author: O. Hen.

23. **"Rejecting cosmic background for exclusive neutrino interaction studies with liquid Argon TPCs; a case study with the MicroBooNE detector"**
C. Adams et al. (MicroBooNE Collaboration).
**Eur. Phys. J. C 79, 673 (2019).**
based on analysis lead by: E.O. Cohen, A. Papadopoulou, A. Ashkenazi, E. Piasetzky, and *O. Hen*.

22. **"Probing High Momentum Protons and Neutrons in Asymmetric Nuclei"**
M. Duer and *O. Hen* et al. (CLAS Collaboration).
**Nature 560, 617 (2018).**
Corresponding author: O. Hen.

21. **"Center of mass motion of short-range correlated nucleon pairs studied via the A(e, e′pp) reaction"**
E. Cohen and *O. Hen* et al. (CLAS Collaboration).
**Phys. Rev. Lett. 121, 092501 (2018).**
Corresponding author: O. Hen.

20. **"Short range correlations and the isospin dependence of nuclear correlation functions"**
R. Cruz-Torres, A. Schmidt, G. A. Miller, L. B. Weinstein, N. Barnea, R. Weiss, E. Piasetzky, and *O. Hen.*
**Phys. Lett. B 785, 304 (2018).**

19. **"The Nuclear Contacts and Short-Range Correlations in Nuclei"**
R. Weiss, R. Cruz-Tsorres, N. Barnea, E. Piasetzky, and *O. Hen*
**Phys. Lett. B 780, 211 (2018).**
Corresponding author: O. Hen.

18. **"The symmetry energy γ parameter of the consistent relativistic mean-field models"**
M. Dutra, O. Lourenco, *O. Hen*, E. Piasetzky and D.P. Menezes.
**Chin. Phys. C 42, 064105 (2018).**

17. **"Nucleon-Nucleon Correlations, Short-lived Excitations, and the Quarks Within"**
*O. Hen*, G.A. Miller, E. Piasetzky, and L.B. Weinstein.
**Rev. Mod. Phys. 89, 045002 (2017).**

16. **"Aspects of charge distribution measurement for 252Cf(sf)"**
T. Wang, G. Li, L. Zhu, *O. Hen*, G. Zhang, Q. Meng, L. Wang, H. Han, and H, Xia.
**Phys. Rev. C 96, 034611 (2017)**

15. **"Hammer events, neutrino energies, and nucleon-nucleon correlations"**
L. B. Weinstein, *O. Hen*, and E. Piasetzky.
**Phys. Rev. C 94, 045501 (2016).**

14. **"Correlated Fermions in Nuclei and Ultracold Atomic Gases"**
*O. Hen*, L. B. Weinstein, E. Piasetzky, G. A. Miller, M. M. Sargsian, and Y. Sagi.
**Phys. Rev. C 92, 045205 (2015).**
Corresponding author: O. Hen.

13. **"Extracting the Mass Dependence and Quantum Numbers of Short-Range Correlated Pairs from A(e,e'p) and A(e,e'pp) Scattering"**
C. Colle, *O. Hen*, W. Cosyn, I. Korover, E. Piasetzky, J. Ryckebusch, and L. B. Weinstein.
**Phys. Rev. C 92, 024604 (2015).**

12. **"Comment on 'Measurement of 2- and 3-nucleon short range correlation probabilities in nuclei'"**
D. W. Higinbotham and *O. Hen*.
**Phys. Rev. Lett. 114, 169201 (2015).**

11. **"Symmetry Energy of Nucleonic Matter with Tensor Correlations"**
*O. Hen*, W.J. Guo, B.A. Li, L.B. Weinstein, and E. Piasetzky.
**Phys. Rev. C 91, 025803 (2015).**
Corresponding author: O. Hen.

10. **"Momentum Sharing in Imbalanced Fermi Systems"**
*O. Hen* et al. (CLAS Collaboration).
**Science 346, 614 (2014). Selected for 'Science-Express'.**
Corresponding author: O. Hen.

9. **"Approaching the nucleon-nucleon short-range repulsive core via the 4He(e,e'pN) triple coincidence reaction"**
I. Korover, N. Muangma, and *O. Hen* et al. (Jefferson Lab Hall-A Collaboration).
**Phys. Rev. Lett. 113, 022501 (2014).**

8. **"Measurement of Transparency Ratios for Protons from Short-Range Correlated Pairs"**
*O. Hen* et al. (CLAS Collaboration).
**Phys. Lett. B 722, 63 (2013).**
Corresponding author: O. Hen.

7. **"The EMC Effect and High Momentum Nucleons in Nuclei"**
*O. Hen*, D. W. Higinbotham, G. Miller, E. Piasetzky, and L. B. Weinstein.
**Int. J. Mod. Phys. E. 22, 1330017 (2013).**
Corresponding author: O. Hen.

6. **"The EMC effect still puzzles after 30 years" (Cover Paper)**
D. W. Higinbotham, G. Miller, *O. Hen*, and K. Rith.
**CERN Cour. 53N4, 35 (2013).**

5. **"New data strengthen the connection between Short Range Correlations and the EMC effect"**
*O. Hen*, E. Piasetzky, and L. B. Weinstein.
**Phys. Rev. C 85, 047301 (2012).**

4. **"Investigations of HAVAR® Alloy using Positrons"**
S. May-Tal Beck, W. Anwand, A. Wagner, G. Brauer, A. Beck, A. Ocherashvili, *O. Hen*, S. Harush, Y. Eisen, and D. Moreno.
**DDF 331, 95-112 (2012). Chapter in periodical: "Defect and Diffusion Forum", special issue on: "Near-Surface Depth Profiling of Solids by Mono-Energetic Positrons".**

3. **"Constraints on the Large-x d/u Ratio from Electron-Nucleus Scattering at x>1"**
*O. Hen*, A. Accardi, W. Melnitchouk, and E. Piasetzky.
**Phys. Rev. D. 84, 117501 (2011).**

2. **"Short Range Correlations and the EMC Effect"**
L. B. Weinstein, E. Piasetzky, D. W. Higinbotham, J. Gomez, *O. Hen*, and R. Shneor.
**Phys. Rev. Lett. 106, 052301 (2011).**

1. **“Short Range Correlations and the EMC Effect”**

E. Piasetzky, L. B. Weinstein, D. W. Higinbotham, J. Gomez, *O. Hen*, and R. Shneor.
**Nucl. Phys. A 855, 245-248 (2011).**

# Conferences, Seminars and Colloquia – Or Hen

149 oral presentations given in the form of invited & plenary talks (92) and seminars & colloquia (57).

## Confirmed:

94. **"Recent MicroBooNE cross-section results: inclusive channels and pion production"**
International Conference on High-Energy Physics (ICHEP), Bologna, Italy (July 2022).

93. **"Lepton Scattering in the Era of Precision Neutrino Oscillation measurements"**
Gordon Conference on Photonuclear Reactions, Holderness School NH, USA (August 2022).

## Invited & Plenary:

92. **"Electron and neutrino interactions for precision oscillation measurements"**
Neutrino Theory Network Workshop, Fermi National Accelerator Lab, Illinois USA (June 2022).

91. **"Electrons-4-Neutrinos (e4v): Trailblazing the Precision Neutrino Oscillations Era" (Plenary)**
XXX International Conference on Neutrino Physics and Astrophysics (Neutrino 2022), Seoul, South Korea [via zoom] (June 2022).

90. **"Electrons, Neutrinos, and Short-Range Correlations"**
NuSTEC Workshop on Improving the Art of Neutrino-Nuclei Modelling with Charged Lepton Scattering Data, Tel-Aviv, Israel [via zoom] (March 2022).

89. **"Tagged heavy vector-meson production: probing the gluon structure of bound nucleons and nuclei"**
Physics opportunities with an energy upgrade at Jefferson-Lab (J-FUTURE), Messina, Italy [via zoom] (March 2022).

88. **"Electrons-4-Neutrinos: Trailblazing the Precision Neutrino Oscillations Era" (Plenary)**
Moriond '22: Electroweak Interactions & Unified Theories, La Thuile, Italy (March 2022).

87. **"QCD, correlations, and the nuclear medium"**
Lake Louise Winter Institute, Lake Louise, Canada (February 2022).

86. **"Electrons for Neutrinos: new results towards precision oscillation measurements"**
Neutrino–Nucleus Interactions in the Standard Model and Beyond, CERN [via zoom] (January 2022).

85. **"Nucleon structure modification from tagged DIS measurements"**
Light Cone 2021: Physics of Hadrons on the Light Front, Jeju island, Korea [via zoom] (November 2021).

84. **"New results on high-momentum neutron-tagged DIS measurement with BAND at CLAS12"**
Conference on Exploring QCD with Tagged Processes, Institut Pascal, University Paris-Saclay, France [via zoom] (October 2021).

83. **"Probing QCD in Nuclei: from Jefferson Lab to the EIC"**
Symposium on QCD and Nuclei, Cambridge, MA (October 2021).

82. **"From quarks to nuclei: unveiling universalities in strongly interacting systems"**
Symposium on Intersection of Nuclear Physics in Japan and the United States, Japan Physical Society (JPS) Fall Meeting (September 2021).

81. **"The EIC Comprehensive Chromodynamics Experiment (ECCE)"**
Electron Ion Collider Users Group Summer Meeting, Virginia Union University, Richmond, VA, and University of California Riverside, Riverside, CA [via zoom] (August 2021).

80. **"The EIC Comprehensive Chromodynamics Experiment (ECCE)"**
Precision Studies of QCD at the Electron-Ion Collider (PSQ@EIC), Asian Pacific Center of Theoretical Physics (APCTP) Pohang, South Korea, and the Center of Frontiers in Nuclear Science (CFNS), Stony Brook, NY [via zoom] (July 2021).

79. **"The EIC Comprehensive Chromodynamics Experiment (ECCE)"**
Saturation and Diffraction at the LHC and the EIC, ECT*, Trento, Italy [via zoom] (June 2021).

78. **"Transparent Virtual Nucleons and Short-Range Correlations"**
Future Color Transparency and Hadronization Studies at Jefferson Lab and Beyond, Jefferson Lab, Newport News VA [via zoom] (June 2021).

77. **"EMC and SRC research and the 12 GeV Jefferson-Lab program"**
3rd International Workshop on Quantitative Challenges in EMC and SRC Research, MIT/LNS and Jefferson Lab EIC Center, USA [via zoom] (March 2021).

76. **"EIC Physics and the Yellow Report"**
1st EIC Comprehensive Chromodynamics Experiment (ECCE) Workshop [via zoom] (February 2021).

75. **"Short Range Correlations and the Quarks Within" (keynote talk)**
International Symposium on Clustering as a Window on the Hierarchical Structure of Quantum Particles, Beppu city, Kyushu Island, Japan (January 2020).

74. **"Short Range Correlations and the Quarks Within" (Plenary)**
American Physical Society Division of Nuclear Physics (APS-DNP) Fall Meeting, Washington DC, USA (October 2019).

73. **"From Electrons to Neutrinos: Nuclear Effects in Oscillation Measurements" (Prize Recipient Talk)**
American Physical Society Division of Nuclear Physics (APS-DNP) Fall Meeting, Washington DC, USA (October 2019).

72. **"e4v: Understanding Neutrino Interactions from Electron Scattering Measurements" (Plenary)**
21st International workshop on Neutrinos from Accelerators (NUFACT '19), Daegu, Korea (August 2019).

71. **"Modified Structure of Protons and Neutrons in Correlated Pairs"**
5th International Workshop on the Structure of the Nucleon at Large Bjorken x (HiX2019), Crete, Greece (August 2019).

70. **"Neutron Stars Droplets and the Quarks Within" (Plenary)**
27th International Nuclear Physics Conference (INCP2019), Glasgow, Scotland (July 2019).

69. **"Constraining the NN Interaction up to 1 GeV/c using Nucleon Knockout Reactions"**
Ab-Initio Nuclear Theory: From Breakthroughs to Applications, University of Surrey, Guildford, England (July 2019).

68. **"Overview of SRC Studies using (e,e'pN) reactions"**
XV Elba workshop on Lepton Interactions with Nucleons and Nuclei, Isola d'Elba, Italy (June 2019).

67. **"Short-Range Correlations and Lepton-Nucleus Interactions" (Plenary)**
Testing and Improving Models of Neutrino Nucleus Interactions in Generators, ECT*, Trento, Italy (June 2019).

66. **"Electrons-4-Neutrinos: What are we measuring and what will it teach us?" (Plenary)**
Testing and Improving Models of Neutrino Nucleus Interactions in Generators, ECT*, Trento, Italy (June 2019).

65. **"TPCs for Beta Decay Studies"**
Precise beta decay calculations for searches for new physics, ECT*, Trento, Italy (April 2019).

64. **"Overview of SRC studies and new results"**
2nd Workshop on Quantitative Challenges in EMC and SRC Research, MIT, Cambridge MA, USA (March 2019)

63. **"New results from Short-Range Correlations and EMC effect studies: EIC Implications"**
Probing Nucleons and Nuclei in High Energy Collisions, Institute for Nuclear Theory (INT), Seattle WA, USA (October 2018).

62. **"Short Range Correlations and Spectroscopic Factors Quenching"**
5th joint meeting of the Nuclear Physics Divisions of the APS and JPS, Hawaii (October 2018).

61. **"Electron scattering constrains to neutrino interactions"**
Electromagnetic Observables for Low-Energy Nuclear Physics, Mainz, Germany (October 2018).

60. **"Short-range correlations: overview of recent results"**
Workshop on short-range nuclear correlations at an Electron-Ion Collider, Center for Frontiers in Nuclear Science (CFNS), Brookhaven National Laboratory, NY USA (August 2018).

59. **"New studies of short-range correlations and the EMC effect" (Plenary)**
22nd European Conference on Few-Body Problems in Physics (EFB22), Caen, France (July 2018).

58. **"Short-Range Correlation and Nuclei and the Generalized Contact Formalism"**
Fundamental Physics with Electroweak Probes of Light Nuclei, Institute for Nuclear Theory (INT), Seattle WA, USA (July 2018).

57. **"Recent progress in the study of Short-Range Correlations"**
13th Conference on Interactions of Particle and Nuclear Physics (CIPANP18), Palm Springs, CA (June, 2018)

56. **"From Nuclei to Neutron-Stars: Short-Range Fermion Correlations"**
3rd Rothschild Colloquium, Institute for advanced studies, Hebrew University, Jerusalem, Israel (May 2018)

55. **"The EMC Effect and Short-Range Correlations: When 1 + 1 ≠ 2" (Plenary)**
26th International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS-2018), Kobe, Japan (April 2018).

54. **"New Results on Short Range Correlations in Nuclei"**
Nuclear ab-initio Theories and Neutrino Physics, Institute for Nuclear Theory (INT), Seattle WA, USA (March 2018).

53. **"Short Range Correlations: New results and future experiments with Lepton and Hadron Beams"**
Workshop on Hadronic Physics with Lepton and Hadron Beams, Newport News, VA USA (September 2017).

52. **"Digital Positronium Decay"**
Tabletop Experiments with Skyscraper Reach, Massachusetts Institute of Technology (MIT), Cambridge MA, USA (August 2017).

51. **"QCD in Nuclei: Bound Nucleon Structure and Short-Range Correlations"**
APS Division of Particles and Fields (DPF) Summer Meeting, Fermi National Accelerator Lab, Illinois USA (August 2017).

50. **"SRC studies with proton and nuclear beams"**
3rd International Workshop on Quasi-Free Scattering with Radioactive-Ion Beams (QFS-RB 17), York, England (July 2017).

49. **"Short-Range Correlations: Electron Scattering & Effective Theories"**
3rd International Workshop on Quasi-Free Scattering with Radioactive-Ion Beams (QFS-RB 17), York, England (July 2017).

48. **"Probing the NN Interaction and SRC formation process using hard knockout processes"**
International workshop on (e,e'p) processes, Bled, Slovenia (July 2017).

47. **"Short Range Correlations in Heavy Nuclei" (Plenary)**
11th International Workshop on Neutrino-Nucleus Scattering in the Few-GeV Region (NuINT2017), Toronto, Canada (June 2017).

46. **"OLIVIA: 8Li Decay Measurement Using an Optical TPC"**
IAEC-LLNL Workshop on Nuclear Physics, Lawrence Livermore National Laboratory, Livermore CA, USA (May 2017).

45. **"Mining for Quasi Elastic Interactions at JLab – Leveraging Electron and Neutrino Data"**
MicroBooNE Collaboration Meeting, Fermi National Accelerator Lab, Illinois USA (April 2017).

44. **"Short Range Correlations and Nuclear Universality"**
Reactions with Relativistic Radioactive Beams ($R^3B$), GSI Darmstadt, Germany (April 2017).

43. **"New Insights to the Origin of the EMC effect"**
25th International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS-2017), Birmingham, England (April 2017).

42. **"Nucleon and Nuclear Structure from Electron Scattering"**
International workshop on Studies of High-Density Nuclear Matter With Hadron Beams, Weizmann Institute, Rehovot Israel (March 2017).

41. **"Short Range Correlations and Geometrical Fluctuations in Nuclei"**
CBM-STAR Joint Workshop, TU Darmstadt, Darmstadt, Germany (March 2017).

40. **"The Jefferson-Lab Tritium Physics Program"**
JLab Hall-A / C Collaboration Meeting, Jefferson Lab, Newport News VA, USA (January 2017).

39. **"Universality in Short-Range Correlations"**
Theoretical Developments in Neutrino-Nucleus Scattering, Institute for Nuclear Theory (INT), Seattle WA, USA (December 2016).

38. "**Overview of SRC Factorization and Universality"**
Quantitative Challenges in EMC and SRC Research, Massachusetts Institute of Technology (MIT), Cambridge MA, USA (December 2016).

37. **"Short-Range Nuclear Structure: From JLab12 to an EIC"**
7th International Conference on Physics Opportunities at an ElecTron-Ion-Collider (POETIC7), Temple University, Philadelphia (November 2016).

36. **"From Nuclei to Neutron-Stars: Short-Range Fermion Correlations"**
XII Conference on Quark Confinement and the Hadron Spectrum, Thessaloniki, Greece (August 2016).

35. **"Short-Range Nuclear Structure"**
Gordon Conference on Photonuclear Reactions, Holderness School NH, USA (August 2016).

34. **"Short-Range Fermion Correlations: From neV to MeV" (Plenary)**
23rd European Conference on Few-Body Problems in Physics (EFB23), Aarhus, Denmark (August 2016).

33. **"Nuclear and Bound Nucleon Structure Studies at an EIC"**
Electron Ion Collider User Group Meeting, Argonne National Lab, Lemont IL, USA (July 2016).

32. **"Short-Range Correlations and Implications" (Prize Recipient Plenary)**
Jefferson Lab User Group Meeting, Newport News VA, USA (June 2016).

31. **"Short-Range Nuclear Structure and the Nuclear Symmetry Energy"**
6th international symposium on nuclear symmetry energy (NUSYM16), Beijing, China (June 2016).

30. **"The OLIVIA experiment - 'Trapless' study of $^{8}$Li beta decay"**
International Conference on Precision Physics of Simple Atomic Systems (PSAS'2016), Hebrew University, Israel (May 2016).

29. **"Nuclear Structure Studies with GlueX"**
Nuclear Photoproduction with GlueX, Jefferson Lab, Newport News, VA (April 2016).

28. **"Opportunities for Short-Range Correlation Studies using Hadronic Beams"**
International Workshop on Opportunities at the Extended Hadron-Hall at J-PARC, Tokai, Japan (March 2016).

27. **"Short-Range Nuclear Structure"**
International Workshop on Progress on J-PARC Hadron Physics in 2016, Tokai, Japan (March 2016).

26. **"Momentum Sharing in Asymmetric Fermi Systems"**
Next-Generation Nuclear Physics with JLab12 and EIC, Miami FL (February 2016).

25. **"Short-Range Correlation and EMC Effect Studies at an EIC"**
Next-Generation Nuclear Physics with JLab12 and EIC, Miami FL (February 2016).

24. **"Correlations in Nuclei"**
54th International Winter Meeting on Nuclear Physics, Bormio, Italy (January 2016).

23. **"Probing Cold Dense Nuclear Matter" (Prize Recipient Plenary)**
Israeli Physical Society (IPS) annual meeting, Bar-Ilan university, Israel (December 2015).

22. **"Correlation Studies via (e,e'2N) Reactions and Implications"**
International Symposium on "High-resolution Spectroscopy and Tensor interactions" (HST15), Nakanoshima Center, Osaka, Japan (November 2015).

21. **"Short-Range Correlations and the Bound Nucleon Structure" (Plenary)**
11th European Research Conference on Electromagnetic Interactions with Nucleons and Nuclei (EINN-2015), Paphos, Cyprus (November 2015).

20. **"Studying Short-Range Correlations at the EIC"** (presented by D. Higinbotham)
Mini-Symposium, "Attacking the Nuclear Force at the EIC", Fall meeting of the APS Division of Nuclear Physics (DNP), Santa-Fe NM, USA (October 2015).

19. **"Correlations, Contact Interactions, and the Nuclear Symmetry Energy"**
EMMI workshop on "Cold dense nuclear matter - from short-range nucleon correlations to neutron stars", GSI Darmstadt, Germany (October 2015).

18. **"SRC and EMC Effects"**
EMMI workshop on "Cold dense nuclear matter - from short-range nucleon correlations to neutron stars", GSI Darmstadt, Germany (October 2015).

17. **"Symmetry Energy of Nucleonic Matter With Tensor Correlations"**
5th International Symposium on Nuclear Symmetry Energy (NUSYM15), Krakow, Poland (July 2015)

16. **"Correlations in Nuclei: Current Status, Implications, and Future Plans"**
Jefferson Lab User Group Meeting, Newport News VA, USA (June 2015).

15. **"Implications of Short-Range Correlations and the Bound Nucleon Structure Function"**
12th Conference on Interactions of Particle and Nuclear Physics (CIPANP15), Vail, Colorado (May 2015)

14. **"Short-Range Correlations in Imbalanced Fermi Systems" (Plenary)**
7th international Conference on Quarks and Nuclear Physics (QNP15), Valparaiso, Chile (March 2015)

13. **"Energy Sharing in Imbalanced Fermi Systems"**
4th CLAS12 European Workshop, Catania, Italy (February 2015)

12. "**Correlation in Nuclei - Moving Beyond the Fermi-Gas Model**"
Theory Meeting Experiment, Neutrinos and Cosmos (TMEX14), Warsaw University, Warsaw, Poland (September 2014)

11. **"Correlations in Asymmetric Interacting Fermi Systems"**
Gordon Conference on Photonuclear Reactions, Holderness School NH, USA (August 2014).

10. **"Studding the Motion of Short-Range Correlated Pairs from A(e,e'pp) Scattering"**
International Workshop on Experimental and Theoretical Topics in CLAS Data Mining, Massachusetts Institute of Technology (MIT), Cambridge MA, USA (August 2014).

9. "**From neV to MeV: Short-Range Fermion Correlations**"
Frontiers and Careers in Photonuclear Physics, Massachusetts Institute of Technology (MIT), Cambridge MA, USA (August 2014).

8. **"Correlations in Heavy Nuclei"**
44$^{th}$ Journées des Actinides, SPCA review lectures, Ein-Gedi, Israel (2014).

7. **"(e,e'p) studies of Mean-Field and Correlated Protons in Asymmetric Nuclei"**
QCD in the Nuclear Medium, Tel-Aviv University, Tel-Aviv, Israel (2013).

6. **"The EMC Effect and Correlated Nucleons"**
QCD in the Nuclear Medium, Tel-Aviv University, Tel-Aviv, Israel (2013).

5. **"Review of EMC/SRC Correlation Studies"**
Nuclear Structure and Dynamics at Short Distances, Institute for Nuclear Theory (INT), Seattle WA, USA (2013).

4. **"Recent Results from Exclusive Studies of Two-Nucleon SRCs"**
Nuclear Structure and Dynamics at Short Distances, Institute for Nuclear Theory (INT), Seattle WA, USA (2013).

3. **"Short Range Correlations and the EMC Effect"**
Gordon Conference on Photonuclear Reactions, Holderness School NH, USA (2012).

2. **"Short Range Structure of Nuclei"**
Jefferson Lab User Group Meeting, Newport News VA, USA (2012).

1. **"Mining for Proton-Proton Correlations"**
International Workshop on Short Range Correlations and Hard QCD Phenomena, ECT*, Trento, Italy (2011).

## Seminars and Colloquia:

57. **"Neutron Star Droplets and the Quarks Within"**
Massachusetts Institute of Technology, Pappalardo 20$^{th}$ Anniversary Physics Department Colloquium, Cambridge MA, USA (April 2022).

56. **"The Electron-Ion Collider: Science program & detector development opportunities"**
Ben-Gurion University, Israeli Joint Nuclear Seminar, Beer-Sheva, Israel [via zoom] (April 2022).

55. **"Hadronic Physics, Quantum Chromodynamics, and the nuclear medium"**
UK STFC summer school, Durham, UK (March 2022).

54. **"Electrons-4-Neutrinos: Trailblazing the Precision Neutrino Oscillations Era"**
Harvard University, Laboratory for Particle Physics and Cosmology Seminar, Cambridge MA, USA (March 2022).

53. **"The quest to understand the fundamental structure of matter – outlook to the U.S. Electron-Ion Collider"**
Join Institute for Nuclear Research, Veksler and Baldin Laboratory of high-energy physics seminar (January 2022).

52. **"Neutrino Oscillations and Interactions"**
University of Ljubljana, Physics Department Colloquium, Ljubljana, Slovenia [via zoom] (November 2021).

51. **"From quarks to nuclei: unveiling universalities in strongly interacting systems"**
Rice University, Physics Department Colloquium, Houston, Texas (November 2021).

50. **"From quarks to nuclei: unveiling universalities in strongly interacting systems"**
Carnegie Mellon University and University of Pittsburgh, Physics Departments joint Colloquium, Pittsburgh, PA (October 2021).

49. **"QCD and Nuclei"**
Weizmann Institute, Particle and Astrophysics Department Seminar, Rehovot, Israel (October 2021).

48. **"The U.S. Electron Ion Collider (EIC): Physics Program and Local Opportunities"**
Tel-Aviv University, Physics Department Seminar, Tel-Aviv, Israel [via zoom] (March 2021).

47. **"From quarks to nuclei: unveiling universalities in strongly interacting systems"**
University of Washington, Physics Department Colloquium, Seattle WA, USA [via zoom] (March 2021).

46. **"Unveiling universality in strongly interacting (nuclear) systems"**
Tel-Aviv University, Physics Department Colloquium, Tel-Aviv, Israel [via zoom] (October 2020).

45. **"From Electron to Hadron Beams: Advances in Short-Range Correlations Studies"**
FRIB Theory Alliance Colloquium, Facility for Radioactive Ion Beams (FRIB), East Lansing MI, USA [via zoom] (September 2020).

44. **"Nuclear correlation via electron beams" (Invited lecture series)**
19$^{th}$ CNS International Summer School, Tokyo, Japan [via zoom] (August 2020).

43. **"Many-body factorization and new measurements of short-range correlations"**
Institute for Nuclear Theory (INT), S@INT Seminar, Seattle WA, USA [via zoom] (June 2020).

42. **"New Results on Short-Range Correlations from 48 GeV/c $^{12}$C+p Reactions - from the Nuclotron to FAIR and the EIC"**
Brookhaven National Lab, Nuclear Physics Seminar, Upton NY, USA [via zoom] (May 2020).

41. **"New results from measurements of short-range correlations in nuclei - from the Nuclotron to FAIR"**
GSI-FAIR Colloquium, Darmstadt, Germany [via zoom] (May 2020).

40. **"Short Range Correlations and the Quarks Within"**
RIKEN Radioactive Beam Factory Laboratory (RIBF), Nuclear Physics Seminar, Tokyo, Japan (January 2020).

39. **"Electron Scattering Constraints on Neutrino Interactions and Oscillation Analyses"**
Tokyo Institute of Technology, Physics Department Seminar, Tokyo, Japan (January 2020).

38. **"Short Range Correlations and the Quarks Within"**
Tokyo Institute of Technology, Physics Department Seminar, Tokyo, Japan (January 2020).

37. **"Short Range Correlations and the Quarks Within"**
Michigan State University, NSCL/FRIB Nuclear Science Seminar, East Lansing MI, USA (November 2019).

36. **"Neutron Stars Droplets and the Quarks Within"**
University of Kentucky, Physics Department Colloquium, Lexington KY, USA (October 2019).

35. **"Neutron Stars Droplets and the Quarks Within"**
Argonne National Laboratory, Physics Division Colloquium, Lemont IL, USA (September 2019).

34. **"Neutron Stars Droplets and the Quarks Within"**
University of Virginia, Physics Department Colloquium, Charlottesville VA, USA (September 2019).

33. **"Neutron Stars Droplets and the Quarks Within"**
Technical University of Munich, Strong Interaction Physics Seminar, Munich, Germany (June 2019).

32. **"Neutron Stars Droplets and the Quarks Within"**
Lawrence Berkeley National Lab, Nuclear Science Division Colloquium, Berkeley CA, USA (February 2019).

31. **"Neutron Stars Droplets and the Quarks Within"**
Texas A&M University, Cyclotron Institute Colloquium, College Station TX, USA (November 2018).

30. **"Short-Ranged Correlations and the Bound Nucleon Structure"**
University of Pennsylvania, Physics Department Seminar, Philadelphia PA, USA (November 2018).

29. **"Neutron Stars Droplets and the Quarks Within"**
Massachusetts Institute of Technology, Laboratory for Nuclear Science Colloquium, Cambridge MA, USA (September 2018).

28. **"Short-Ranged Correlations and the Bound Nucleon Structure"**
Yale University, Wright Laboratory seminar, New Haven CT, USA (August 2018).

27. **"Fluctuating Nucleons in Asymmetric Nuclei"**
University at Albany, Physics Department Colloquium, Albany NY, USA (April 2018).

26. **"Fluctuating Nucleons in Asymmetric Nuclei"**
University of Connecticut, Physics Department Colloquium, Storrs CT, USA (February 2018)

25. **"Short Range Correlations and Nuclear Universality"**
Technical University Darmstadt, Physics Department Colloquium, Darmstadt, Germany (February 2018).

24. **"Fluctuating Nucleons in Asymmetric Nuclei"**
Technical University Darmstadt, Nuclear Physics Seminar, Darmstadt, Germany (February 2018).

23. **"Superdense nuclear matter and QCD"**
Massachusetts Institute of Technology, Women in Physics IAP Colloquium, Cambridge MA, USA (January 2018).

22. **"Short Range Correlations and Nuclear Universality"**
Duke University, Triangle Universities Nuclear Laboratory (TUNL) seminar, Durham NC, USA (September 2017).

21. **"Long and Short Range Nuclear Structure" (Invited lecture series)**
Thomas Jefferson National Lab, 32nd HUGS Summer School Program, Newport News VA, USA (June 2017).

20. **"SRC Studies: Current Status and Future Plans"**
Oak Ridge National Laboratory, Physics Division seminar, Oak Ridge TN, USA (May 2017).

19. **"From Cold Atoms to Nuclei: Universal Physics at Short distances"**
Ohio University, Physics Department Colloquium, Athens OH, USA (October 2016).

18. **"Short-Range Fermion Correlations: From neV to MeV"**
University of Michigan, Physics Department Seminar, Ann Arbor MI, USA (October 2016).

17. **"Short-Range Nuclear Structure and Neutrino-Nucleus Interactions"**
Fermi National Accelerator Lab, Joint Experiment and theory Seminar, Batavia IL, USA (April 2016).

16. **"From neV to MeV: Short-Range Fermion Correlations"**
Brookhaven National Lab, Physics Department Colloquium, Upton NY, USA (January 2016).

15. **"Short-Range Correlations in Nuclei – Current Status and Future Perspectives"**
Brookhaven National Lab, Physics Department joint Experiment and Theory Seminar, Upton NY, USA (January 2016).

14. **"Probing Super Dense Nuclear Matter"**
Washington University in St. Louis, Nuclear Physics Seminar, St. Louis MO, USA (December 2015)

13. **"Reactor production of $^{8}$Li nuclei for sterile neutrino searches"**
Tel-Aviv University, Particle Physics Seminar, Tel-Aviv, Israel (June 2015)

12. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Tel-Aviv University, Physics Department Colloquium, Tel-Aviv, Israel (May 2015)

11. **"Experimental Study of Short-Range Correlations in Nuclei"**
Joint Institute for Nuclear Research (JINR), Physics Colloquium, Dubna, Russia (March 2015)

10. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Hebrew University, Israeli Joint Nuclear Seminar, Jerusalem, Israel (March 2015).

9. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Massachusetts Institute of Technology, Laboratory for Nuclear Science (LNS) Colloquium, Cambridge MA, USA (February 2015).

8. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Thomas Jefferson National Laboratory, Physics Seminar, Newport-News VA, USA (November 2014).

7. **"Short-Range Correlations in Imbalanced Fermi Systems"**
University of Washington, CENPA Physics Seminar, Seattle WA, USA (November 2014).

6. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Michigan State University, NSCL Physics Seminar, East Lansing MI, USA (November 2014).

5. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Rutgers University, Physics Department Seminar, New Brunswick NJ, USA (November 2014).

4. **"Short-Range Correlations in Imbalanced Fermi Systems"**
Argonne National Lab, Physics Division Seminar, Lemont IL, USA (August 2014).

3. **"Deep in the Nucleus: a puzzle revisited"**
Tel-Aviv University, Particle Physics Seminar, Tel-Aviv, Israel (May 2013).

2. **"Measurement of Transparency Ratios for Protons from Short-Range Correlated Pairs"**
Weizmann Institute, Israeli Joint Nuclear Seminar, Rehovot, Israel (November 2012).

1. **"The EMC Effect, Short-Range Correlations, and the Free Neutron Structure Function"**
Tel-Aviv University, Particle Physics Seminar, Tel-Aviv, Israel (October 2010).