

Curriculum Vitae – Meytal Duer



Name: Meytal Duer

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Email: mduer@ikp.tu-darmstadt.de

Date of birth: 30.10.1989

Education:

2014 – 2019: Graduate studies, Experimental Nuclear physics, Tel-Aviv University, Israel.
Direct Ph.D. Honors program

2013 – 2014: M.Sc. Studies in physics, Tel-Aviv University, Israel. Continued to a direct Ph.D. track.

2010 – 2013: Undergraduate Studies: B.Sc. In physics, Tel-Aviv University, Israel.

Awards:

2018: J. Eisenberg award for academic research excellence (Tel-Aviv University, Physics).

Work Experience:

2019 – present: Postdoctoral research, experimental nuclear physics, Institut für Kernphysik,
Technische Universität Darmstadt, Germany.

Teaching Experience:

2019 – present: Teaching assistant, Technische Universität Darmstadt.

2013 – 2018: Undergraduate physics lab instructor, Tel-Aviv University.

Army service:

2008 – 2010: Legal assistant, Military Soldiers Complains Commissioner unit.

Publications:

Submitted:

“The Transparent Nucleus: unperturbed inverse kinematics nucleon knockout measurements with a 48 GeV/c carbon beam”

M. Patsyuk, J. Kahlbow, G. Laskaris, *M. Duer*, V. Lenivenko, E. P. Segarra, T. Atovullaev, G. Johansson, T. Aumann, A. Corsi, O. Hen, M. Kapishin, V. Panin, E. Piassetzky, et al. ([BM@N](#) Collaboration), Submitted (2020).

“Tensor-to-Scalar Transition in the Nucleon-Nucleon Interaction Mapped by $^{12}\text{C}(e,e'pn)$ Measurements”

I. Korover, J. R. Pybus, A. Schmidt, F. Hauenstein, *M. Duer*, O. Hen, E. Piassetzky, L. B. Weinstein, D. W. Higinbotham, et al. (CLAS Collaboration), Submitted (2020).

Published:

“The CLAS12 Backward Angle Neutron Detector (BAND)”

E. P. Segarra, F. Hauenstein, A. Schmidt, K. Pryce, I. Vega, J. Barlow, E. Barriga, A. Beck, W. Brooks, E. Cohen, R. Cruz-Torres, A. Denniston, *M. Duer*, P. Eugenio, C. Fogler, H. Hakobyan, T. Hartlove, A. Hrnjic, I. Korover, T. Kutz, S. May-Tal Beck, A. Nambrath, A. Ostrovidov, E. Piassetzky, J. R. Pybus, M. Ungerer, L. B. Weinstein, O. Hen, Nucl. Instrum Methods A **978**, 164356 (2020).

“Measurements of transparency ratios for neutrons and protons”

M. Duer, O. Hen, E. Piasezky, L. B. Weinstein, A. Schmitt, E. O. Cohen, I. Korover, H. Hakobyan, et al. (CLAS Collaboration), Phys. Lett. B **797**, 134792 (2019).

“Direct Observation of Proton-Neutron Short-Range Correlation Dominance in Heavy Nuclei”

M. Duer, O. Hen, E. Piasezky, L. B. Weinstein, A. Schmitt, E. O. Cohen, I. Korover, H. Hakobyan, et al. (CLAS Collaboration), Phys. Rev. Lett. **122**, 172502 (2019).

“Modified Structure of Protons and Neutrons on Correlated Pairs”

B. Schmookler, *M. Duer*, A. Schmidt, S. Gilad, O. Hen, E. Piasezky, M. Strikman, L. B. Weinstein, et al. (CLAS Collaboration), Nature, **566**, 354-358 (2019).

“Probing High Momentum Protons and Neutrons in Neutron-Rich Nuclei”

M. Duer, O. Hen, E. Piasezky, H. Hakobyan, L.B. Weinstein, M. Braverman, E. O. Cohen, D. Higibotham ,et al. (CLAS Collaboration), Nature, **506**, 617-621 (2018).

“Center of mass motion of short-range correlated nucleon pairs studied via the A(e,e'pp) reaction”

E. O. Cohen, O. Hen, E. Piasezky, L.B. Weinstein, *M. Duer*, A. Schmidt, I. Korover, et al. (CLAS Collaboration), Phys. Rev. Lett, **121**, 092501 (2018).

Conferences / Seminars Presentations:

Invited plenary talks to be delivered:

2. **“Short-Range Correlations in neutron-rich Nuclei”**

The 8th Asia-Pacific Conference on Few-Body Problems in Physics, Kanazawa, Japan (March 2021).

1. **“Short-Range Correlations in neutron-rich Nuclei”**

German Physical Society (DPG) Spring Meeting, Bonn, Germany (March 2020 – postponed to unknown date).

Invited talks in conferences:

12. **“Short-Range Correlations in neutron-rich Nuclei”**

EMMI Physics day, GSI Darmstadt, Germany (November 2019).

11. **“Study of the $^8\text{He}(p,p\alpha)^4\text{n}$ reaction”**

International Workshop on Quasi-Free Scattering with Radioactive-Ion Beams, Maresias, Brazil (October 2019).

10. **“Short-Range Correlations in neutron-rich Nuclei”**

Invited session talk at the International Nuclear Physics Conference (INPC), Glasgow, UK (July 2019).

9. **“Probing High-Momentum Protons and Neutrons in Asymmetric Nuclei”**
 APS Division of nuclear Physics and the Physical Society of Japan Workshop,
 Waikoloa HI, USA (October 2018).
8. **“Short Range Correlations – Recent Results”**
 Gordon Conference on Photo-nuclear Reaction, Holderness School NH, USA (August 2018).
7. **“Kinetic energy of protons and neutrons in asymmetric nuclei”**
 Electromagnetic Interactions with Nucleons and Nuclei, European Research Conference,
 Phafos, Cyprus, (October, 2017).
6. **“Kinetic energy of protons and neutrons in asymmetric nuclei”**
 International Workshop on (e,e'p) Processes, Bled, Slovenia, (July, 2017).
5. **“Kinetic energy of protons and neutrons in asymmetric nuclei”**
 Jefferson Lab User Group Meeting, Newport News VA, USA (June 2017).
4. **“Probing high-momentum neutrons and protons in asymmetric nuclei”**
 International Workshop on high-density matter, Weizmann Institute, Israel (March, 2017).
3. **“Momentum sharing in asymmetric nuclei”**
 Quantitative challenges in EMC and SRC Research and Data-Mining, Massachusetts Institute
 of Technology (MIT), Cambridge MA, USA (December, 2016).
2. **“Study of the (e,e'n) reaction using JLab CLAS EG2 data”**
 International workshop on cold dense matter, GSI, Darmstadt, Germany (October 2015).
1. **“Study of the A(e,e'n) reaction”**
 International workshop on Experimental and Theoretical topics in JLab Data-Mining, Buffalo
 NY, (July 2015).

Seminars and collaboration meeting talks:

10. **“Study of the $8\text{He}(p,p\ \alpha)4n$ reaction”**
 SAMURAI Collaboration meeting, Tokyo, Japan (August 2019).
9. **“Short-Range-Correltaions in neutron-rich nuclei”**
 Nuclear Physics Seminar, Michigan State University, East Lansing MI, USA (October 2018).
8. **“SRC studies using Triple Coincidence A(e,e'pp) and A(e,e'np) reactions”**
 Jefferson Lab CLAS Collaboration Meeting, Newport News VA, USA (July 2018).
7. **“Probing high-momentum protons and neutrons in asymmetric nuclei”**
 Physics Seminar, NRCN, Israel (June 2018).
6. **“Probing high-momentum protons and neutrons in asymmetric nuclei”**
 Particle Physics Seminar, Tel-Aviv University, Tel-Aviv Israel (January 2018).

5. **“Kinetic energy of protons and neutrons on asymmetric nuclei”**
Nuclear Physics Seminar, Old Dominion University, Norfolk VA, USA (June 2017).
4. **“Kinetic energy of protons and neutrons on asymmetric nuclei”**
Israeli Joint Nuclear Seminar, Tel-Aviv University, Tel-Aviv Israel (June 2017).
3. **“Probing 2N-SRC with the $A(e,e'n)$ and $A(e,e'p)$ reactions”**
Jefferson Lab CLAS Collaboration Meeting, Newport News VA, USA (November 2016).
2. **“Study of 2N-SRC via the $A(e,e'np)$ reaction”**
Jefferson Lab CLAS Collaboration Meeting, Newport News VA, USA (February 2016).
1. **“Study of the $A(e,e'n)$ reaction – Data-Mining project”**
Jefferson Lab CLAS Collaboration Meeting, Newport News VA, USA (February 2016).