

**CV - Guy Ron**

Full Name: Guy Ron

Date of Birth: December 17, 1975

**Academic Background**

From - To	Institute	Degree	Area of Specialization
2000 - 2003	Tel Aviv University	B.Sc.	Physics
2006 - 2009	Tel Aviv University	Ph.D.	Nuclear Physics

**Previous Employment**

From - To	Institute	Degree	Area of Specialization
2011 - Present	Hebrew University	Senior Lecturer	Nuclear Physics
2009 (Aug.) - 2011	Lawrence Berkeley Natl. Lab	Post-Doc	Nuclear Physics (weak interactions)
2009 (Jan.) - 2009 (Aug.)	Weizmann Institute	Post-Doc	Nuclear Physics

**Honors and Awards**

- Samuel Sigfried Wolf Lecturer in Nuclear Physics
- 2012 Golda Meir Fellow
- 2012 Runner-up, Nuclear Physics Thesis Award, EPS
- 2009 Best JSA/JLab Thesis Prize
- 2009-2010 Rothschild Postdoctoral Fellow
- 2009 Weizmann Institute Dean's Postdoc Fellowship
- Jehuda Eisenberg Fellowship
- Adams Fellow of the Israeli Foundation for Science
- Joseph Dotan Fellowship

**Funding**

Active

Grant	Amount	Agency	Collaborators
Production of rare isotopes for high precision standard model tests	200KNIS/yr (2013-2015)	IAEA/DOE	Prof. Micha Hass (WI), Dr. Tsiviki Hirsh (NRC)
Testing the standard model with trapped radioactive isotopes	250 KNIS NIS/yr (2011-2015) + 210 K\$ Equipment Grant	ISF	
Neutron Modification in the Nuclear Medium	30 kEuro (1 year, 2012)	GIF	
Electrostatic trapping of radioactive ions	250 K\$ (4 years, 2011-2015) (Shared)	BSF	Prof. Michael Hass (WI), Prof. Stuart Freedman (UC Berkeley)
Slow Positron Beam	1.3 MNIS (2 years, 2012-2014) (Shared)	Israeli Department of Industry	Prof. Eli Piasetzky (TAU), Dr. Sharon Beck (NRCN)
Calculations and Simulations for Prompt Fission	75 KNIS	Israeli Atomic Energy Commission	

Submitted

Grant	Agency	Collaborators
Construction of an accelerator-based laboratory for nuclear science studies	Pazi Foundation	Prof. Micha Hass (WI), Prof. Michael Paul (HUJI), Dr. Dan Berkovits (NRC)

Expired

Grant	Amount	Agency	Collaborators
Electromagnetically Induced Transparency in Metastable Neon (expired)	120 KNIS	Israeli DOD	Dr. Nadav Katz

Spokesperson on experiments/proposals:

- **JLab Experiment E08-007:** A Measurement of the Proton Form Factor Ratio Down to Very Low  $Q^2$ . *Completed data taking, now being analyzed by my student.*
- **PSI Proposal R-12-01.1:** Studying the Proton "Radius" Puzzle with  $\mu p$  Elastic Scattering (MUSE). *Technical Design Review awarded us beam time in Oct 2012 before final submission to PAC.*
- **MAMI A1/Mainz Experiment:** A Measurement of the Medium Modification of Highly Bound Protons in Deuterium. *Completed data taking, being analyzed by a student from Tel Aviv University and one of my students.*
- A Measurement of the Bethe-Heitler Pair Production Asymmetries at HI $\gamma$ S: To run 2014.
- **MAMI A1/Mainz:** Neutron Properties in the Nuclear Medium Studied by Polarization Measurement. *Letter of Intent submitted, detector being designed by one of my students.*
- **MAMI A1/MESA:** A Measurement of the Bethe-Heitler Pair Production Asymmetries. *Letter of Intent approved the 2012 PAC.*
- **MAMI A1:** Measurement of the Medium Modification of Protons Bound in Different Shells of  $^{12}\text{C}$ . *To be submitted to the 2013 PAC.*

## Publications

Here are some selected recent publications in peer-reviewed journals:

## References

- [1] Hard Two-body Photodisintegration of  $3\text{He}$ , I. Pomerantz *et al.*, 1303.5049.
- [2] Studying the Proton "Radius" Puzzle with  $\mu p$  Elastic Scattering, R. Gilman *et al.*, 1303.2160.
- [3] Measurement of the  $^{12}\text{C}(e,e'p)^{11}\text{B}$  Two-Body Breakup Reaction at High Missing Momentum Values, P. Monaghan *et al.*, 1301.7027.
- [4] New approaches in designing a zeeman slower, B. Ohayon and G. Ron, Journal of Instrumentation **8**, P02016 (2013).
- [5] Nuclear Density Dependence of In-Medium Polarization, G. Ron, W. Cosyn, E. Piasetzky, J. Ryckebusch and J. Lichtenstadt, Phys. Rev. C **87**, **028202**, 028202 (2013), [1212.3976].
- [6] New Measurements of the Transverse Beam Asymmetry for Elastic Electron Scattering from Selected Nuclei, S. Abrahamyan *et al.*, Phys.Rev.Lett. **109**, 192501 (2012), [1208.6164].
- [7] Measurement of the neutron radius of  $^{208}\text{Pb}$  through parity violation in electron scattering, S. Abrahamyan, Z. Ahmed, H. Albataineh, K. Aniol, D. S. Armstrong, W. Armstrong, T. Averett, B. Babineau, A. Barbieri, V. Bellini, R. Beminiwaththa, J. Benesch, F. Benmokhtar, T. Bielarski, W. Boeglin, A. Camsonne, M. Canan, P. Carter, G. D. Cates, C. Chen, J.-P. Chen, O. Hen, F. Cusanno, M. M. Dalton, R. De Leo, K. de Jager, W. Deconinck, P. Decowski, X. Deng, A. Deur, D. Dutta, A. Etile, D. Flay, G. B. Franklin, M. Friend, S. Frullani, E. Fuchey, F. Garibaldi, E. Gasser, R. Gilman, A. Giusa, A. Glamazdin, J. Gomez, J. Grames, C. Gu, O. Hansen, J. Hansknecht, D. W. Higinbotham, R. S. Holmes, T. Holmstrom, C. J. Horowitz, J. Hoskins, J. Huang, C. E. Hyde, F. Itard, C.-M. Jen, E. Jensen, G. Jin, S. Johnston, A. Kelleher, K. Kliakhandler, P. M. King, S. Kowalski, K. S. Kumar, J. Leacock, J. Leckey, J. H. Lee, J. J. LeRose, R. Lindgren, N. Livanage, N. Lubinsky, J. Mammei, F. Mammoliti,

- D. J. Margaziotis, P. Markowitz, A. McCreary, D. McNulty, L. Mercado, Z.-E. Meziani, R. W. Michaels, M. Mihovilovic, N. Muangma, C. Muñoz Camacho, S. Nanda, V. Nelyubin, N. Nuruz-zaman, Y. Oh, A. Palmer, D. Parno, K. D. Paschke, S. K. Phillips, B. Poelker, R. Pomatsalyuk, M. Posik, A. J. R. Puckett, B. Quinn, A. Rakhman, P. E. Reimer, S. Riordan, P. Rogan, G. Ron, G. Russo, K. Saenboonruang, A. Saha, B. Sawatzky, A. Shahinyan, R. Silwal, S. Sirca, K. Slifer, P. Solvignon, P. A. Souder, M. L. Sperduto, R. Subedi, R. Suleiman, V. Sulkosky, C. M. Sutura, W. A. Tobias, W. Troth, G. M. Urciuoli, B. Waidyawansa, D. Wang, J. Wexler, R. Wilson, B. Wojtsekhowski, X. Yan, H. Yao, Y. Ye, Z. Ye, V. Yim, L. Zana, X. Zhan, J. Zhang, Y. Zhang, X. Zheng and P. Zhu, *Phys. Rev. Lett.* **108**, 112502 (2012).
- [8] The proton form factor ratio at low  $Q^2$ : New results from Jefferson Lab, G. Ron, *Mod.Phys.Lett.* **A26**, 2605 (2011).
- [9] Methods for optical calibration of the bigbite hadron spectrometer, M. Mihovilovi?, S. ?irca, K. Allada, B. Anderson, J. Annand, T. Averett, A. Camsonne, R. Chan, J.-P. Chen, K. Chirapatpimol, C. de Jager, S. Gilad, D. Hamilton, J.-O. Hansen, D. Higinbotham, J. Huang, X. Jiang, G. Jin, W. Korsch, J. LeRose, R. Lindgren, N. Liyanage, E. Long, R. Michaels, B. Moffit, P. Monaghan, V. Nelyubin, B. Norum, E. Piasetzky, X. Qian, Y. Qiang, S. Rior-dan, G. Ron, G. Rosner, B. Sawatzky, M. Shabestari, A. Shahinyan, R. Shneor, R. Subedi, V. Sulkosky, J. Watson and Y.-W. Zhang, *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* **686**, 20 (2012).
- [10] Low- $Q^2$  measurements of the proton form factor ratio  $\mu_p g_e^p / g_m^p$ , G. Ron, X. Zhan, J. Glister, B. Lee, K. Allada, W. Armstrong, J. Arrington, A. Beck, F. Benmokhtar, B. L. Berman, W. Boeglin, E. Brash, A. Camsonne, J. Calarco, J. P. Chen, S. Choi, E. Chudakov, L. Co-man, B. Craver, F. Cusanno, J. Dumas, C. Dutta, R. Feuerbach, A. Freyberger, S. Frullani, F. Garibaldi, R. Gilman, O. Hansen, D. W. Higinbotham, T. Holmstrom, C. E. Hyde, H. Ibrahim, Y. Ilieva, C. W. de Jager, X. Jiang, M. Jones, A. Kelleher, E. Khrosinkova, E. Kuchina, G. Kumbartzki, J. J. LeRose, R. Lindgren, P. Markowitz, S. M.-T. Beck, E. McCullough, M. Meziane, Z.-E. Meziani, R. Michaels, B. Moffit, B. E. Norum, Y. Oh, M. Olson, M. Paolone, K. Paschke, C. F. Perdrisat, E. Piasetzky, M. Potokar, R. Pomatsalyuk, I. Pomerantz, A. J. R. Puckett, V. Punjabi, X. Qian, Y. Qiang, R. Ransome, M. Reyhan, J. Roche, Y. Rousseau, A. Saha, A. J. Sarty, B. Sawatzky, E. Schulte, M. Shabestari, A. Shahinyan, R. Shneor, S. Širca, K. Slifer, P. Solvignon, J. Song, R. Sparks, R. Subedi, S. Strauch, G. M. Urciuoli, K. Wang, B. Wojtsekhowski, X. Yan, H. Yao and X. Zhu, *Phys. Rev. C* **84**, 055204 (2011).
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- [13] Nucleon electromagnetic form factor ratio at low  $Q^2$ : The JLab experimental program, G. Ron, *PoS CD09*, 094 (2009).
- [14] Measurements of the electric form factor of the neutron up to  $Q^2=3.4 \text{ geV}^2$  using the reaction  ${}^3\vec{H}e(\vec{e}, e'n)pp$ , S. Riordan, S. Abrahamyan, B. Craver, A. Kelleher, A. Kolarkar, J. Miller, G. D. Cates, N. Liyanage, B. Wojtsekhowski, A. Acha, K. Allada, B. Anderson, K. A. Aniol, J. R. M. Annand, J. Arrington, T. Averett, A. Beck, M. Bellis, W. Boeglin, H. Breuer, J. R. Calarco, A. Camsonne, J. P. Chen, E. Chudakov, L. Coman, B. Crowe, F. Cusanno, D. Day, P. Degtyarenko, P. A. M. Dolph, C. Dutta, C. Ferdi, C. Fernandez-Ramirez, R. Feuerbach, L. M. Fraile, G. Franklin, S. Frullani, S. Fuchs, F. Garibaldi, N. Gevorgyan, R. Gilman, A. Glamazdin, J. Gomez, K. Grimm, J.-O. Hansen, J. L. Herraiz, D. W. Higinbotham, R. Holmes, T. Holm-

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