

Alan Salcedo Gomez

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Updated: September 7, 2022

- EDUCATION**
- The Ohio State University (OSU)** 8/2020 -
Ph.D. in Physics, *Distinguished University Fellowship* GPA: 3.97/4.0
- The University of Texas at El Paso (UTEP)** 12/2019
B.Sc. in Physics and Mathematics, *honors degree* GPA: 4.0/4.0
University Honors Thesis: Assessment of Fermi-Löwdin Orbitals on Self-Interaction Corrected Density Functional Theory with the Regularized SCAN Functional Approximation.
- RESEARCH EXPERIENCE**
- OSU Physics Department, UHE Neutrino Experiments** Columbus, OH
Supervisor: Prof. Amy Connolly 4/2022 -
- UTEP Physics Department, FLOSIC Collaboration** El Paso, TX
Supervisors: Prof. Rajendra Zope, Prof. Tunna Baruah 1/2019 - 5/2020
- Oak Ridge National Laboratory, PROSPECT Collaboration** Oak Ridge, TN
U. of Tennessee, Knoxville, Research Fellow 6/2018 - 8/2018
Supervisor: Dr. Alfredo Galindo-Uribarri
- MIT, Center for Theoretical Physics** Cambridge, MA
MIT Summer Research Program (MSRP) Fellow 6/2017 - 8/2017
Supervisors: Prof. John W. Negele, Prof. Phiala Shanahan, Dr. Andrew Pochinsky
- UTEP Physics Department, Nuclear Theory Group** El Paso, TX
Supervisor: Prof. Jorge A. Lopez 6/2016 - 5/2017
- PUBLICATIONS**
- 1 Yamamoto, Y., **Salcedo, A.**, Diaz, C., Alam, S., Baruah, T., Zope, R. (2020). Assessing the effect of regularization on the molecular properties predicted by SCAN and self-interaction corrected SCAN meta-GGA, *Phys. Chem. Chem. Phys.* DOI: 10.1039/d0cp02717k.
- CONFERENCE - TALKS**
- 1 **Salcedo A.**, Yamamoto, Y., Baruah, T., Zope, R. (2020). Assessment of SCAN and regularized SCAN functionals with and without Self Interaction Correction. APS March Meeting: DFT and Beyond I.
- CONFERENCE - POSTERS**
- 5 **Salcedo, A.**, Yamamoto, Y., Zope, R. (2019). Assessment of rSCAN with FLOSIC. *FLOSIC Collaboration Annual Meeting*.
- 4 Venegas, D., **Salcedo, A.**, Galindo, A. (2018). Background Characterization at the High Flux Isotope Reactor. *5th Joint Meeting of the APS Division of Nuclear Physics and the Physical Society of Japan. Bulletin Vol. 63:12, HA 60**.
- 3 Hackett, B., **Salcedo, A.**, Venegas, D. (2018). Background Characterization at the High Flux Isotope Reactor. *25th International Conference on the Application of Accelerators in Research and Industry. CAARI Book of Abstracts, 189, #398*.

*Abstract submitted by Venegas, D. Poster presented by me.

- 2 **Salcedo, A.**, Lopez J., Terrazas, S., Gaytan, A. (2017). Liquid-gas Coexistence Phase in Nuclear Matter. *Fission Experiments and Theoretical Advances. FIESTA 2017 School & Workshop Book of Abstracts*, 70.
- 1 **Salcedo, A.**, Lopez, J., Ramirez-Homs, E. (2016). Isospin-Symmetry Dependent Properties of Nuclear Matter. *Joint Meeting of the Four Corners and Texas Sections of the American Physical Society. Abstract ID: [BAPS.2016.TSF.E1.53](#)*

SYMPOSIUM - POSTERS

- 3 **Salcedo, A.**, Yamamoto, Y., Zope, R. (2019). Aspects of Self-Interaction Correction to the Regularized SCAN Functional on Density Functional Theory. *UTEP COURI Annual Symposium*.
- 2 **Salcedo, A.**, Shanahan, P., Pochinsky, A., Negele, J. (2017). Classification of Dynamical Systems and Prediction of their Physical States Using Deep Learning. *31st Annual MIT Summer Research Poster Session. Link to [Abstract](#)*.
- 1 **Salcedo, A.**, Lopez, J., Ramirez-Homs, E. (2016). Isospin-Symmetry Dependent Properties of Nuclear Matter. *UTEP COURI Annual Symposium*.

SCHOOLS AND WORKSHOPS

- 4 **Summer School in Theoretical Physics**; Utrecht University. 8/2018
- 3 **PROSPECT Data Analysis Workshop**; Yale Wright Laboratory. 6/2018
- 2 **Fission Experiments and Theoretical Advances**; Los Alamos Nat. Lab. 9/2017
- 1 **Nuclear Science Summer School**; NSCL/Michigan State University. 5/2017

HONORS AND AWARDS

- **\$2,000 Research Award**; OSU Physics Department. 2021
- **State Youth Award for Academic Accomplishments**; Chihuahua State. 2020
- **City Youth Award for Academic Accomplishments**; Juarez City. 2020
- **Academic and Research Excellence Award**; UTEP Physics Dept. 2019
- **Academic and Research Excellence Award**; UTEP Mathematics Dept. 2019
- **Banner Bearer**; UTEP College of Science Winter Commencement. 2019
- **CEU Travel Award**; APS Division of Nuclear Physics. 2018
- **SURPASS Fellowship**; UTEP Campus Office of Undergraduate Research Initiatives. 2016
- **Jovenes en Accion Finalist**; binational leadership program; U.S. Embassy in Mexico. 2014
- **State Youth Award for Community Service**; Chihuahua State[†]. 2014

TEACHING EXPERIENCE

OSU Physics Department

Graduate Teaching Assistant

- **Recitation and Lab Instructor**, PHYS 1201, 1 per semester. Su. 2022
- **Recitation and Lab Instructor**, PHYS 1201, 2 per semester. Sp. 2022
- **Recitation and Lab Instructor**, PHYS 1250, 2 per semester. F. 2021

Instituto Tesla de Ciudad Juarez

High School Lecturer

- **Special Topics in Physics II**: A survey of mechanical waves, EM fields, EM waves, special relativity, and quantum mechanics. Sp. 2020

[†]Shared with other 3 collaborators.

UTEP Physics Department

Undergraduate Teaching Assistant

- **Laboratory Instructor**; PHYS 2420, 3 per semester. Sp. 2020
- **Grader**; Analytical Mechanics I and Electromagnetics I. F. 2019
- **Recitation Instructor**; PHYS 2420 and 2421 for Physics majors. Sp. 2018 - Sp. 2019
- **Recitation Instructor**; PHYS 2420, 2 per semester. F. 2016 - F. 2017
- **Grader**; Physical Science courses for education majors, 3 per semester. Sp. 2016

COMMITTEE/ COMMUNITY

- **MIT Summer Research Program**, *Application Review Committee*. 2020 - 2022
- **UTEP Society of Physics Students**, *President*. 5/2019 - 5/2020
- **UTEP Society of Physics Students**, *Secretary*. 8/2018 - 5/2019
- **U.S. Consulate in Juarez, MX**, *Youth Council, Found. Member*. 9/2014 - 9/2016

SOFTWARE

- **Data Analysis**: ROOT, Gnuplot.
- **Programming Languages**: C, Java, Python.
- **Other Software**: LaTeX, HDF.

LANGUAGES

- Spanish (Native Proficiency).
- English (Bilingual Proficiency).