# DEVON LOOMIS

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## EDUCATION

**Western Kentucky University** *August 2016 - December 2018*
B.S. Physics, B.S. Mathematics Magna Cum Laude

## SOFTWARE FLUENCY

**Languages** C++, Python, Java, Latex, LabVIEW FPGA

**Tools** ROOT, GEANT, Pythia, MCNP, Fun4All, Git, PCB Design

## PUBLICATIONS

B. Abdisatarov, S. Ilhom, K. Kholikov, **D. Loomis**, V. Dobrokhotov, M. Khenner, and A.O. Er, Applied Physics A 126, 237 (2020). https://doi.org/10.1007/s00339-020-3414-y

In Progress: **D. Loomis**, V. Cianciolo, J. Leggett. "Efficiency simulations of the nEDM@SNS light collection system."

## PRESENTATIONS

"Measurement Cell and Light Collection System Simulations at nEDM@SNS"
- Southeastern Section American Physical Society Annual Meeting, *November 6$^{th}$, 2020*

"MCNP Simulation Study of the Dual Radiation Rotating Scattering Mask for Localization of Gamma and Neutron Sources"
-American Physical Society Division of Nuclear Physics Fall Meeting, *October 31$^{nd}$, 2020*

Hardened Electronics and Radiation Technologies (HEART) conference exhibitor
-San Diego, *April 8$^{th}$ - 12$^{th}$, 2019*

"A PDE Model for Analysis of the Surface Morphology of a Bi-Component Solid Film"
-Western Kentucky Mathematics Seminar, *December 11$^{th}$, 2018*

"Nanosecond pulsed laser deposition of Pb thin film on Si (111)"
-Southeastern Section American Physical Society Annual Meeting, *November 9$^{th}$, 2018*

"Experimental Study of the Dual Radiation Rotating Scattering Mask to Localize Neutron and Gamma sources with CLYC Detector"
-Kentucky Academy of Sciences Annual Meeting, *November 2$^{nd}$, 2018*,

## EXPERIENCE

**University of Michigan** August 2020 - Present
*Research Assistant*

- Member of PHENIX Spin Physics working group at the Relativistic Heavy Ion Collider
- Performing $\eta$ meson cross section and spin asymmetry measurements to investigate hadron formation and spin structure of nucleon

**Oak Ridge National Laboratory** May 2020 - August 2020

*SULI Research Intern*

- Provided the nEDM@SNS collaboration with design guidelines to minimize signal background and measurement cell charging to levels reasonable for the desired experiment sensitivity.
- Simulated and confirmed the efficacy of the nEDM@SNS light collection system.

**Scientic, Inc.** January 2019 - Present

*Physicist*

- Developed radiation effects testing systems with in-situ data acquisition and instrument control written with LabVIEW FPGA. Successfully deployed during multiple tests.
- Implemented Monte Carlo simulation techniques with MCNP and GEANT4 for the modeling of radiation transport through devices.

**Western Kentucky University** May 2017 - December 2018

*Research Assistant*

- Constructed and validated a novel radiation shielding mask used for localizing and distinguishing gamma and neutron sources.
- Developed prototype motor control system for WKU radio telescope project.
- Fabricated and characterized Pb ultra-thin films with pulsed laser deposition technique.

*Teaching Assistant*

- PHYS 256 - University Physics I Laboratory

## AWARDS/ MEMBERSHIPS

Pi Mu Epsilon Mathematics Honor Society

Sigma Pi Sigma Physics Honor Society

2020 DOE SULI Program Grant Recipient

2018 Conference USA Commissioner's Medal (NCAA Baseball)

WKU Society of Physics Students (SPS) - Treasurer

Western Kentucky Department of Physics and Astronomy Scholarship Fund Recipient

Paul B. Campbell Scholarship Recipient