

# DEVON LOOMIS

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## EDUCATION

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**Western Kentucky University**

B.S. Physics, B.S. Mathematics

Overall GPA: 3.80/4.00

Physics GPA: 3.90/4.00

*August 2016 - December 2018*

Magna Cum Laude

## SOFTWARE FLUENCY

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

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

## PUBLICATIONS

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B. Abdisatarov, S. Ilhom, K. Kholikov, **D. Loomis**, V. Dobrokhoto, 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

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"Measurement Cell and Light Collection System Simulations at nEDM@SNS"

- Southeastern Section American Physical Society Annual Meeting, *November 6<sup>th</sup>, 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<sup>nd</sup>, 2020*

Hardened Electronics and Radiation Technologies (HEART) conference exhibitor

- San Diego, *April 8<sup>th</sup> - 12<sup>th</sup>, 2019*

"A PDE Model for Analysis of the Surface Morphology of a Bi-Component Solid Film"

- Western Kentucky Mathematics Seminar, *December 11<sup>th</sup>, 2018*

"Nanosecond pulsed laser deposition of Pb thin film on Si (111)"

- Southeastern Section American Physical Society Annual Meeting, *November 9<sup>th</sup>, 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<sup>nd</sup>, 2018*,

## EXPERIENCE

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**University of Michigan**

*Research Assistant*

August 2020 - Present

- 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.

**Scientific, 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**

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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)

2018 WKU Society of Physics Students (SPS) - Treasurer

2018 Western Kentucky Department of Physics and Astronomy Scholarship Fund Recipient

2018 Paul B. Campbell Scholarship Recipient

2016-2017 NCAA Athletic Scholarship Recipient