HERLIK WIBOWO

CURRICULUM VITAE

03/13/2019

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EDUCATION

2009 **M.Sc. Physics**
Faculty of Mathematics and Natural Sciences
Institut Teknologi Sepuluh Nopember Surabaya, Indonesia

2006 **B.Sc. Physics**
Faculty of Mathematics and Natural Sciences
University of Airlangga, Indonesia

PUBLICATIONS

E. Litvinova and H. Wibowo, Nuclear response in a finite-temperature relativistic framework, arXiv:1812.11751, submitted to Eur. Phys. J. A.

H. Wibowo and E. Litvinova, Nuclear Dipole Response in the Finite-Temperature Relativistic Time Blocking Approximation, arXiv:1810.01456, submitted to Phys. Rev. C.

E. Litvinova, C. Robin, and H. Wibowo, Temperature dependence of the nuclear Gamow-Teller resonance, arXiv:1808.07223, submitted to Phys. Rev. Lett.

E. Litvinova and H. Wibowo, Finite-temperature relativistic nuclear field theory: an application to the dipole response, Phys. Rev. Lett. 121, 082501 (2018).

FELLOWSHIP AND SCHOLARSHIPS

2019	**Division of Nuclear Physics Graduate Travel Award 2019** Division of Nuclear Physics American Physical Society, USA
2018 – 2019	**Leo R. Parpart Physics Scholarship** Department of Physics Western Michigan University, USA
2018	**2017-18 Department Graduate Research and Creative Scholar** Graduate College and Graduate Studies Council Western Michigan University, USA
2018	**Haym Kruglak Graduate Student Teaching Excellent Award** Department of Physics Western Michigan University, USA
2018	**Graduate Student Travel Grant Award** Graduate College Western Michigan University, USA
2018	**Graduate Research Assistantship Award** College of Arts and Sciences Western Michigan University, USA
2016 – 2017	**George and Jean Bradley Graduate Physics Scholarship** Department of Physics Western Michigan University, USA
2014 – 2017	**Fulbright Indonesia Presidential Scholarship PhD**

RESEARCH ACTIVITY

2018	**Poster presented at Nuclear Structure 2018** Title: Finite Temperature Relativistic Time-Blocking Approximation: Application to Nuclear Strength Functions

2017 **Paper presented at Fall Meeting of Division of Nuclear Physics (DNP) of the American Physical Society (APS)**
Title: Finite-Temperature Relativistic Time-Blocking Approximation for Nuclear Strength Function

2017 **Poster presented at Joint Institute for Nuclear Astrophysics – Center for the Evolution of the Elements (JINA – CEE) National Science Foundation (NSF) Review**
Title: Investigation of Finite Temperature Effects on Nuclear Excitation Spectra

2017 **Poster presented at WMU's Eleventh Annual Research and Creative Activities Poster and Performance Day**
Title: The Quantum Dancing of Hot Atomic Nuclei: A New Theoretical Approach

TEACHING EXPERIENCE

Graduate Assistant with Doctoral Candidacy

University Physics I Lab (PHYS 2060)	[2017, 2018]

Lecturer, Department of Physics, University of Airlangga, Indonesia

Mathematical Physics II	[2013]
Mathematical Physics I	[2012]
Fundamental Physics II (for Biomedical Engineering)	[2012, 2013]
Fundamental Physics II (for Chemistry)	[2012]
Quantum Mechanics	[2011, 2012]
Quantum Physics	[2011, 2012, 2013]
Electricity and Magnetism	[2011]
Fundamental Physics (for Biology)	[2011]
Fundamental Physics II	[2011, 2013]
Experiments in Physics	[2011, 2012, 2013]
Basic Physics Laboratory	[2011, 2012, 2013]

Teaching Assistant, Department of Physics, University of Airlangga, Indonesia

Fundamental Physics II	[2004]
Quantum Physics	[2003]
Mathematical Physics II	[2003]
Mathematical Physics I	[2002]

RESEARCH EXPERIENCE

Doctoral Research

Department of Physics, Western Michigan University

Supervisor: Elena Litvinova [2015 – Present]

Dissertation title: Investigation of Finite Temperature and Continuum Effects on Nuclear Excitations

Research Collaboration

Laboratorium Fisika Teori dan Filsafat Alam, Indonesia

Collaborator: Agus Purwanto [2010 – 2011]

Conducted theoretical calculation of the eigenvalues of 3x3 Majorana neutrino mass matrix for the conservation of global lepton number and mu-tau interchange symmetry. Co-author of the paper "The Exact Eigenvalues of the Neutrino Mass Matrix in Global Lepton and Mu-Tau Interchange Symmetry", which was published on 2011 in Jurnal Matematika dan Sains Volume 16.

Master Project

Laboratorium Fisika Teori dan Filsafat Alam, Indonesia

Supervisor: Agus Purwanto [2006 – 2009]

Reviewed the SO(10) Grand Unified Theory (GUT) and implemented the theory to understand the Seesaw Mechanism. The literature review was written as a master thesis "SO(10) Grand Unified Theory and Massive Neutrino."

PROFESSIONAL DEVELOPMENT

2019 **Cool Tools: Writing Effective Exam Questions**
Office of Faculty Development
Western Michigan University, USA

2019 **Cool Tools: Introduction to Course Redesign**
Office of Faculty Development
Western Michigan University, USA

2018 **Neutron Star Merger Summer School**
Theory Alliance Facility for Rare Isotope Beams (FRIB), USA

2018 **Graduate Student Teaching Intensive**
Office of Faculty Development
Western Michigan University, USA

2018 **Cool Tools: Working with Toxic People**
Office of Faculty Development
Western Michigan University, USA

2018 **Cool Tools: Using Real Talk Strategies for Increasing Student Engagement and Motivation**
Office of Faculty Development
Western Michigan University, USA

2018 **Cool Tools: Responding to Inappropriate, Disruptive, or Dangerous Behaviors from Students**
Office of Faculty Development
Western Michigan University, USA

2017 **International Graduate Assistant Training Program**
Center for English Language and Culture for International Students and Diether H. Haenicke Institute for Global Education Western Michigan University, USA

2017 **National Nuclear Physics Summer School**
University of Colorado Boulder, USA

2016 **Exotic Beam Summer School**
National Superconducting Cyclotron Laboratory (NSCL)/ Michigan State University, USA

2015 **TALENT School: Many-Body Methods for Nuclear Physics**
Grand Accélérateur National d'Ions Lourds (GANIL), France

2012 **The 2nd Particle Physics School in South-East Asia**
Gadjah Mada University, Indonesia

PROFESSIONAL MEMBERSHIPS

2016 – Present The Honor Society of Phi Kappa Phi
2015 – Present American Physical Society