

## Kraig J. Andrews

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CONTACT INFORMATION	666 West Hancock Street Detroit, MI 48201	+1 248-798-9388 <a href="mailto:kraig.andrews@wayne.edu">kraig.andrews@wayne.edu</a> <a href="http://kraigjandrews.com">kraigjandrews.com</a>
RESEARCH INTERESTS	Two-dimensional materials, nanotechnology, transition metal dichalcogenides, field-effect transistors, semiconductor physics, materials physics	
EDUCATION	<b>Wayne State University</b> , Detroit, MI	<i>expected</i> 2018
	Ph.D., Physics	
	<ul style="list-style-type: none"><li>• Thesis Topic: “Intrinsic Channel Properties, Scattering Mechanisms, and Quantum Transport Properties in Transition Metal Dichalcogenides”</li><li>• Advisor: Zhixian Zhou, Ph.D</li></ul>	
	<b>Wayne State University</b> , Detroit, MI	2016
	M.S., Physics, Feb 2016	
	<b>Michigan State University</b> , East Lansing, MI	2014
	B.S., Physics and Astrophysics (Double Major)	
RESEARCH EXPERIENCE	<b>Graduate Research Assistant</b>	2015–Present
	Nano Fabrication and Electron Transport Laboratory, Department of Physics and Astronomy, Wayne State University Supervisor: Zhixian Zhou, Ph.D.	
	<b>Graduate Research Fellow</b>	2017
	$\pi$ - Electronics Research Group, National Institute for Materials Science (NIMS) (国立研究開発法人物質・材料研究機構), Tsukuba, Ibaraki Prefecture, Japan Supervisor: Kazuhito Tsukagoshi, Ph.D.	
	<b>Undergraduate Researcher</b>	Jan 2014–May 2014
	International Course on Computational Physics (ICCP) Michigan State University and Technische Universiteit Delft East Lansing, MI USA and Delft, Netherlands Supervisors: Phil Duxbury, Ph.D. and Jos Thijssen, Ph.D.	
	<b>Undergraduate Research Assistant</b>	Feb 2013–Dec 2013
	Neutron Star Evolution and Developmental Limits, Department of Astronomy, Michigan State University Supervisor: Edward Brown, Ph.D	
	<b>Undergraduate Research Assistant</b>	May 2012–Jan 2013
	High Resolution Array Group (HIRA): SAMURAI-TPC Project National Superconducting Cyclotron Laboratory, Michigan State University Supervisors: William Lynch, Ph.D. and Betty Tsang, Ph.D.	

INDUSTRY EXPERIENCE	<b>Summer Intern</b> <b>Jenoptik Laser Technologies</b> , Brighton, MI USA Contributed in development of user interface for laser welding machine that allows user manipulation of robotic end-arm tooling. Using microcontroller program via interfaced electronic devices and several developed algorithms machine was able to analyze physical data and feedback.	Jun 2013–Aug 2013
PUBLICATIONS	1. Chamlagain, B., Perera, M., Chuang, H.J., Bowman, A., Rijal, U., <b>Andrews, K.</b> , Klesko, J., Winter, C., Zhou, Z. “Substrate dependence of Hall and Field-effect mobilities in few-layer MoS <sub>2</sub> field-effect transistors.” <i>Manuscript in preperation</i> , 2016.	
CONFERENCE PUBLICATIONS	1. Chamlagain, B., Perera, M., Chuang, H.J., Bowman, A., Rijal, U., <b>Andrews, K.</b> , Klesko, J., Winter, C., Zhou, Z. “Substrate dependence of Hall and Field-effect mobilities in few-layer MoS <sub>2</sub> field-effect transistors.” Bulletin of the American Physical Society, 2016.	
HONORS AND AWARDS TEACHING EXPERIENCE	Teaching Assistant, General Physics II, Wayne State University Teaching Assistant, General Physics II, Wayne State University Teaching Assistant, General Physics I, Wayne State University Teaching Assistant, General Physics I, Wayne State University Teaching Assistant, General Physics Lab I, Wayne State University Laboratory Instructor, Conceptual Physics, Wayne State University Laboratory Instructor, Descriptive Astronomy, Wayne State University Laboratory Instructor, Descriptive Astronomy, Wayne State University Teaching Assistant, Introductory Physics II, Michigan State University Laboratory Instructor, Planets and Telescopes, Michigan State University Teaching Assistant, Introductory Physics I, Michigan State University Teaching Assistant, Introductory Physics II, Michigan State University	Winter 2017 Autumn 2016 Summer 2016 Autumn 2015 Summer 2015 Winter 2015 Winter 2015 Autumn 2014 Winter 2014 Winter 2013 Autumn 2013 Winter 2012
RELEVANT SKILLS	Nanofabrication: Atomic Force Microscopy (AFM), Electron Beam Lithography, Photolithography, Computer-Aided Design (CAD), Scanning Electron Microscopy (SEM), General Clean Room Abilities, Physics Vapor Deposition (PVD), Electron Beam Deposition, Atom Layer Deposition (ALD), Plasma Etching, Reactive Ion Etching.  Programming: C, C++, Fortran, GNU make, HTML, CSS, Python, UNIX shell scripting, and Visual Basic  Data Analysis: GNU octave, Kaleidagraph, LabView, MATLAB, Mathematica, Microsoft Excel  Operating Systems: Apple OS X, Linux OS, Microsoft Windows Family  Editing and Typesetting: T <sub>E</sub> X/L <sup>A</sup> T <sub>E</sub> X, B <sub>I</sub> B <sub>T</sub> E <sub>X</sub> , Microsoft Office, OpenOffice, LibreOffice, GIMP, InkScape  Version Control: Git, Mercurial, SVN	

RELEVANT  
GRADUATE  
COURSEWORK

Methods of Engineering Analysis II  
Advanced Quantum Mechanics I & II  
Survey of Condensed Matter Physics  
Statistical Mechanics  
Electrodynamics  
Thermal Physics