AWARDS FOR PHYSICS UNDERGRADUATES

The Donald E. Schuele Award for an outstanding junior majoring in Engineering Physics. (This award was created in spring 2016.)

Past Winners:
2017 Samuel Merriman
2016 Qiaoyi (Joey) Liu, Caroline Novak, Aaron Peterson-Greenberg, Nicholas Ramey, Steven Tokar & Adele Zawada

The Albert A. Michelson Prize awarded upon completion of the junior year to a physics major who has demonstrated superior performance. (This award was created in spring 2015.)

Past Winners:
2017 Raymond Adkins, Joshua Chiel, Axel Gross, Gwendolyn Hildebrandt, Benjamin Kuznets-Speck, Tianyue Liu, Tyler McMaken, & Nathaniel Starkman
2016 David Cyncynates, David Hathcock & Shichen Wang
2015 Quang Nguyen, Grace Olivier, Emily Shelton, Alexander Strang, Joseph Szabo & Jiawei Wu

The B. S. Chandrasekhar Prize awarded upon completion of the junior year to a physics major who has demonstrated superior performance. (This award ended in spring 2014. It was replaced by the similar Albert A. Michelson Prize.)

Past Winners:
2014 Zaarah Mohamed
2012 Jason Tabachnik
2011 Bryan Weinstein & William Flaherty
2010 Stephen Fleming
2009 Gareth Kafka & Kevin Vick
2008 Amit Misra & Zachary Tobin
2007 Jeremy Mock & Karen Vaughn
2006 Michael Davidson, Kevin Engel & Alexander Grutter
2005 James Garrison, Jonathan Glicoes and Edward Hawkins
2004 Christian Perez, Brandon Bachler & Adam Light
The Leslie L. Foldy Award to the outstanding senior in physics

Past Winners
2017 Elena Polivka & Shichen Wang
2016 Andrew Blasius, Grace Olivier, Emily Shelton, Jeffrey Subbarao, & Joseph Szabo
2015 Jonathan Harper & Zaarah Mohamed
2014 Michael Anderson, Thomas Norton & Evan Telford
2013 Jason Tabachnik
2012 William Flaherty & Jacob Wagner & Rebecca Gilson
2011 Stephen Fleming
2010 Gareth Kafka & Katherine Hagen
2009 Amit Misra
2008 Karen Vaughn & Michael Davidson
2007 Benjamin Shank
2006 Christian Perez
2005 Adam Light, Brandon Bachler and Rachel Benish
2004 Stephanie Bush, Matt Finnerty and Michael Rousos
2003 Steven Stroiney, Joshua Boehm & Thomas Bing
2002 Chad Davis & Michael Salem
2001 Megan Smith & Nick Wagner & David Hanneke
2000 David Olson and Eric Linton
1999 Dan Aubertine
1998 Neil Rubin
1997 Travis C. Brooks and Sean P. McGinnis
1996 John Chiaverini

The Donald A. Glaser Award to an outstanding mathematics and physics student. (This award was created in 2017.)

Past Winners
2017 David Cyncynates and David Hathcock
The Elmer C. Stewart Memorial Award to the outstanding senior in Engineering Physics. (Before 2008, this award was for “an outstanding senior in physics who has demonstrated achievement in the applications of physics”.)

Past Winners:
- 2017 Nicholas Ramey & Steven Tokar
- 2016 Yangdong Li & Quang Nguyen
- 2015 not given
- 2014 Matthew Krupcale & Slavko Rebec
- 2013 Jonathan Frey
- 2012 Bryan Weinstein
- 2011 Kevin Vick & Michael MacDonald
- 2010 Cody Allen
- 2009 Zachary Tobin
- 2008 Daniel Riley
- 2007 Thomas Boatwright & Kristin Poinar
- 2006 Edward Hawkins
- 2005 Justin Thrall
- 2004 Mark Winkler
- 2003 Justin Kenny
- 2002 Jacob Yoder
- 2001 Oleg Kogan
- 2000 Robert Kraig
- 1999 not given
- 1998 Andrew M. Schober
- 1997 John W. Graff
- 1996 Radha Venkhat
- 1995 Russell Fuerst

For the Outstanding Senior in Engineering Physics.

Past Winners (award started in 2004, replaced by the Elmer C. Stewart Award in 2008)
- 2007 Alexander Grutter & Amy Orsborn
- 2006 Christian Perez
- 2005 Paul Bach
- 2004 Mark Winkler, David Nielson & Nathan Kundtz

The Polykarp Kusch Prize to an outstanding senior in physics for the best thesis. (This award was, before 2017, known as The Dayton C. Miller Prize.)

Past Winners:
- 2017 Ryan Chaban, Fast Ion Losses and Edge Localized Modes in Tokamaks
Elisha Haber, *Bistable Motion of Ferromagnetic Vortices*
Mark Hagemann, *Aspects of Interactions between Localized d and f Electrons*
Nathan Kodama, *Multiscale Neuronal Dynamics*

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**The Dayton C. Miller Prize** to an outstanding senior in physics for the best thesis.

Past Winners:

2016  Quang Nguyen, *Battling Optical Losses in Plasmonic Metamaterials*
Emily Shelton, *Rayleigh-Taylor Instability in a Three-Layer Fluid System*
Jeffrey Subbarao, *Computational Modeling of Cell Blebbing*


2014  Oliver Ernst, *Sequential Estimation of Discretization Errors in Inverse Problems*
Shay Mathews, *Photovoltaic Degradation Analysis and Simulated Models*
Gregory Stephen, *Rapid Malaria Detection using the Magneto-Optical Properties of the Malaria Pigment*

2013  Emily Griffin, *Aluminum Zinc Oxide Transparent Conductors for Optical Cavity Enhanced Polymer Photovoltaics*
Jacob Marx, *The Epitaxial Growth of Topological Insulator Thin Films Using Chemical Vapor Deposition*
Maxwell Service, *Asteroseismology using Kepler*

2012  Peter Lee, *Genetic Factors of Alcoholic Steatohepatitis*
Jacob Wagner, *Simulation of Droplet Breakup by Dissipative Particle Dynamics (DPD)*

2011  Stephen Fleming, *Oxide Semiconductor Nanowire Biosensors*
David Dashevsky, *Optogenetic Muscle Fiber Recruitment*

2010  Gareth Kafka, *Imaging by Magnetic Particles with a Nonlinear Field Response*

2009  Dustin Fisher, *Phantom Interference Effects in Quantum Tunneling*

2008  Michael Davidson, *Auger Processes in Semiconductor Quantum Dots*
Daniel Riley, *Cryogenic Stepped Rotation and Characterization of the SPIDER Half Wave Plate*

2007  Alexander J. Grutter, *VLS Growth of Zinc Silicon Nitride Crystals*
Thomas E. Sanders, *Design of a Novel Microfabricated Antenna for Use in Lossy Media*

2006  Joshua Ball, *Adiabatic Quantum Computing*

2005  Chiumun (Michelle) Hui, *Simulations for the X-Ray Occulting Steerable Satellite (XOSS)*
Sarah Lehrian, *Continuing the Battle to Find a Cure for Post-Exam Syndrome*

2004  Mark Winkler, *Surface Mediated Effects in Liquid Crystals*

2003  Steven Rodney, *Simulations for the X-Ray Occulting Steerable Satellite (XOSS)*

2002  Michael Salem, *Stability of Oscillatory Solutions in Field Theory*
2001  Nick Wagner, *Laser Trapping and Cooling*
2000  David Olson, *Vacuum Bubble Dynamics*
1999  Graeme Lufkin, *Simulating Neutrino Oscillation and Detection at BOREXINO*
1998  Benjamin Ruedlinger
1997  Travis C. Brooks
1996  Andrew J. Harey, Jr.
1995  Eric Kangas
1994  Darren Pierre

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**The Senior Award** for service and scholarship in physics.

Past Winners:

2017  Qiaoyi (Joey) Liu & Joshua Ziegler
2016  Elizabeth Tarantino
2015  Stephanie Hougen
2014  Andrew Oriani
2013  Dan Baxter
2012  Kim Star, Jessica Hatch, Lauren Nicholson, Elizabeth McNany, Chelsea Spengler & Rebecca Gilson
2011  Keith Lupton
2010  Sander Zandbergen
2009  Jeremy Harchelroad
2008  Jeremy Mock
2007  Jennifer Kalb
2006  Benjamin Lawrie
2005  Adam Light
2004  Stephanie Bush & Mike Minor
2003  Joshua Boehm & Sonali Mehandru
2002  not given
2001  Andrew Stickrath
2000  Mark Hartman
1999  not given
1998  Eliezer Guararie and Alan F. Fetters
1997  Michael J. Hornish and Matthew W. Banning
1996  Ezekiel Johnston-Halperin
1995  Jason Kasper & Matthew Lewis
1994  Matthew Knepley

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**The Krumhansl Family Prize to an outstanding undergraduate woman for her academic accomplishments in the department of physics** [This award ended after 2011.]

Past Winners:
The Physics and Society Essay Competition Award to the physics major who writes the best essay on the application of physics to societal problems [This award ended after 2003.]

Past Winners

2003 not given
Sonali Mehandru, “Juxtaposition”
2001 not given
2000 Andrew Stickrath, "Alcohol as a Fuel Source - Economic and Energy Feasibility"
1999 not given
1997 Timothy B. Eagan
**EXTERNAL AWARDS FOR CWRU/CASE UNDERGRADUATES**

DOD Fellowship [http://www.asee.org/resources/fellowships/ndseg/](http://www.asee.org/resources/fellowships/ndseg/)

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>CLASS</th>
<th>AWARDS</th>
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<tbody>
<tr>
<td>Benjamin Kuznets-Speck</td>
<td>2018</td>
<td>Goldwater Scholarship</td>
</tr>
<tr>
<td>Nathaniel Starkman</td>
<td>2018</td>
<td>Goldwater Scholarship honorable mention in 2016 &amp; 2017</td>
</tr>
<tr>
<td>David Hathcock</td>
<td>2017</td>
<td>NSF Graduate Fellowship</td>
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<tr>
<td>Zaarah Mohamed</td>
<td>2015</td>
<td>Phi Beta Kappa</td>
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<tr>
<td>Todd Norton</td>
<td>2014</td>
<td>Goldwater Scholarship</td>
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<tr>
<td>Jason Tabachnik</td>
<td>2013</td>
<td>Gates Cambridge &amp; Goldwater Scholarships</td>
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<tr>
<td>Bryan Weinstein</td>
<td>2012</td>
<td>DOE Graduate Scholarship</td>
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<tr>
<td>Stephen Fleming</td>
<td>2011</td>
<td>Churchill Scholarship</td>
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<tr>
<td>Gareth Kafka</td>
<td>2010</td>
<td>Goldwater Scholarship honorable mention</td>
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<tr>
<td>Michael Davidson</td>
<td>2008</td>
<td>Fulbright</td>
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<tr>
<td>Karen Vaughn</td>
<td>2008</td>
<td>NSF Fellowship &amp; National Defense Fellowship</td>
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<tr>
<td>Amy Orsborn</td>
<td>2007</td>
<td>NSF Fellowship</td>
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<tr>
<td>Kristin Poinar</td>
<td>2007</td>
<td>NSF Fellowship</td>
</tr>
<tr>
<td>Stephanie Bush</td>
<td>2004</td>
<td>Goldwater Scholarship &amp; Churchill Fellowship</td>
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<tr>
<td>Mark Winkler</td>
<td>2004</td>
<td>NSF Fellowship</td>
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<tr>
<td>Thomas Bing</td>
<td>2003</td>
<td>NSF Fellowship</td>
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<tr>
<td>David Hanneke</td>
<td>2001</td>
<td>DOD Fellowship for Harvard</td>
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<tr>
<td>David Olson</td>
<td>2000</td>
<td>Goldwater Scholarship NSF Graduate Fellowship for Princeton</td>
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<tr>
<td>Dan Aubertine</td>
<td>1999</td>
<td>Goldwater Scholarship for Stanford (Mat. Sci.)</td>
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<tr>
<td>Neil Rubin</td>
<td>1998</td>
<td>Churchill &amp; NSF Graduate Fellowship for Stanford</td>
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<tr>
<td>Travis Brooks</td>
<td>1997</td>
<td>NSF Graduate Fellowship for Stanford</td>
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<tr>
<td>Erik Kangas</td>
<td>1995</td>
<td>NSF Graduate Fellowship for MIT</td>
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<tr>
<td>Darren Pierre</td>
<td>1994</td>
<td>NSF Graduate Fellowship for MIT</td>
</tr>
<tr>
<td>Erik Raines</td>
<td>1991</td>
<td>Churchill &amp; NSF Graduate Fellowship for Harvard</td>
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<tr>
<td>Christopher Rella</td>
<td>1990</td>
<td>NSF Graduate Fellowship for Stanford</td>
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<tr>
<td>Richard Garwin</td>
<td>1947</td>
<td>National Medal of Science</td>
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<tr>
<td>Donald Glaser</td>
<td>1946</td>
<td>1960 Nobel Prize in Physics</td>
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<tr>
<td>Polykarp Kusch</td>
<td>1931</td>
<td>1955 Nobel Prize in Physics</td>
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</tbody>
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NOBEL PRIZES in PHYSICS for CWRU FACULTY

1907: Albert Michelson (chair of the Department of Physics) is named first American scientist to win the Nobel Prize in physics. 
http://en.wikipedia.org/wiki/Albert_Michelson

1995: Frederick Reines, professor and chair of physics. 
http://en.wikipedia.org/wiki/Frederick_Reines