

# Annual Report on Research

FY 2013



**AUBURN**

**UNIVERSITY**

**COLLEGE OF SCIENCES  
AND MATHEMATICS**

**Office of the Associate Dean for Research**

**Chris Rodger, Ph.D.**

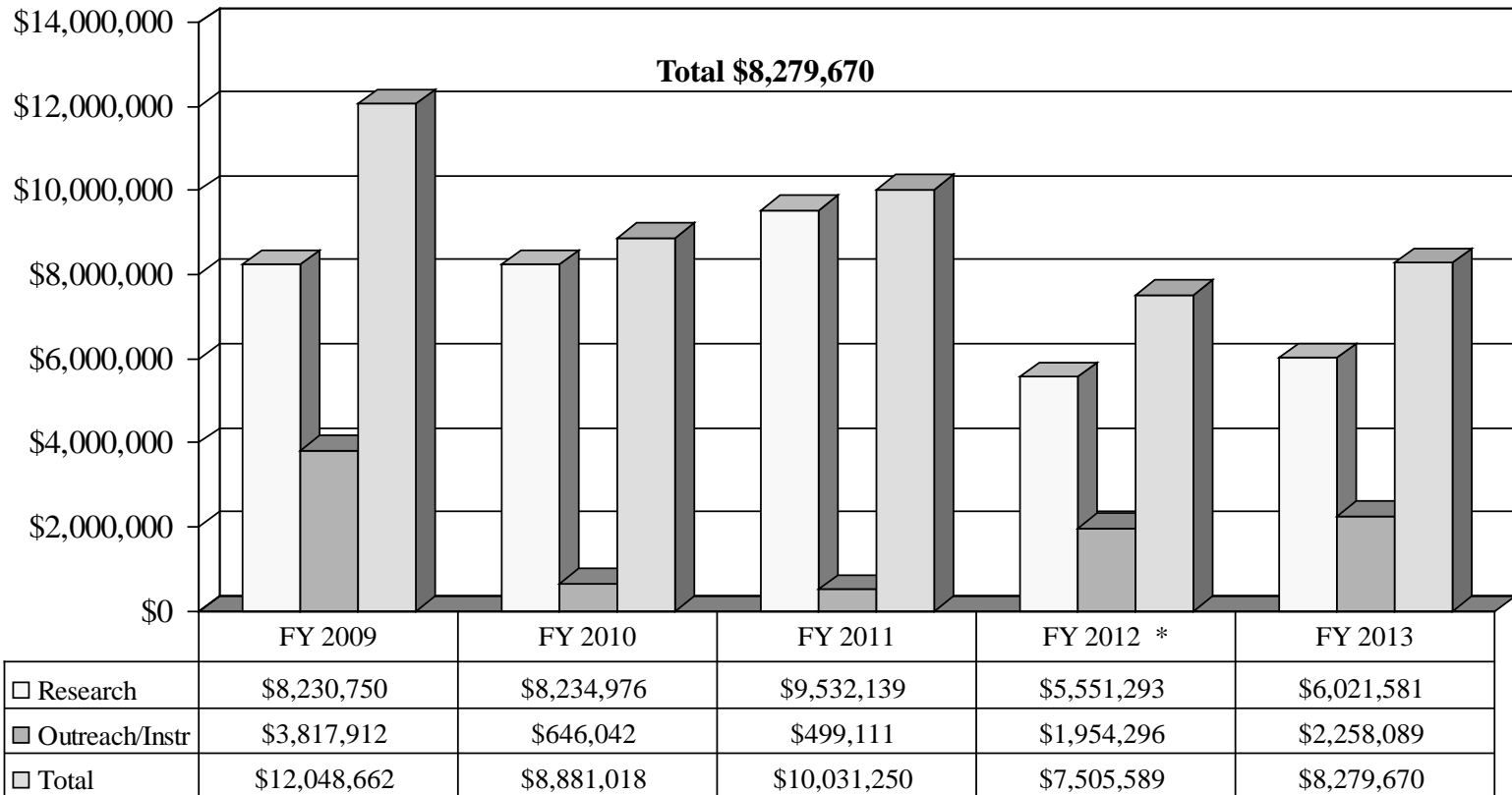
**Amy Thomas**

**Nancy Robinson**

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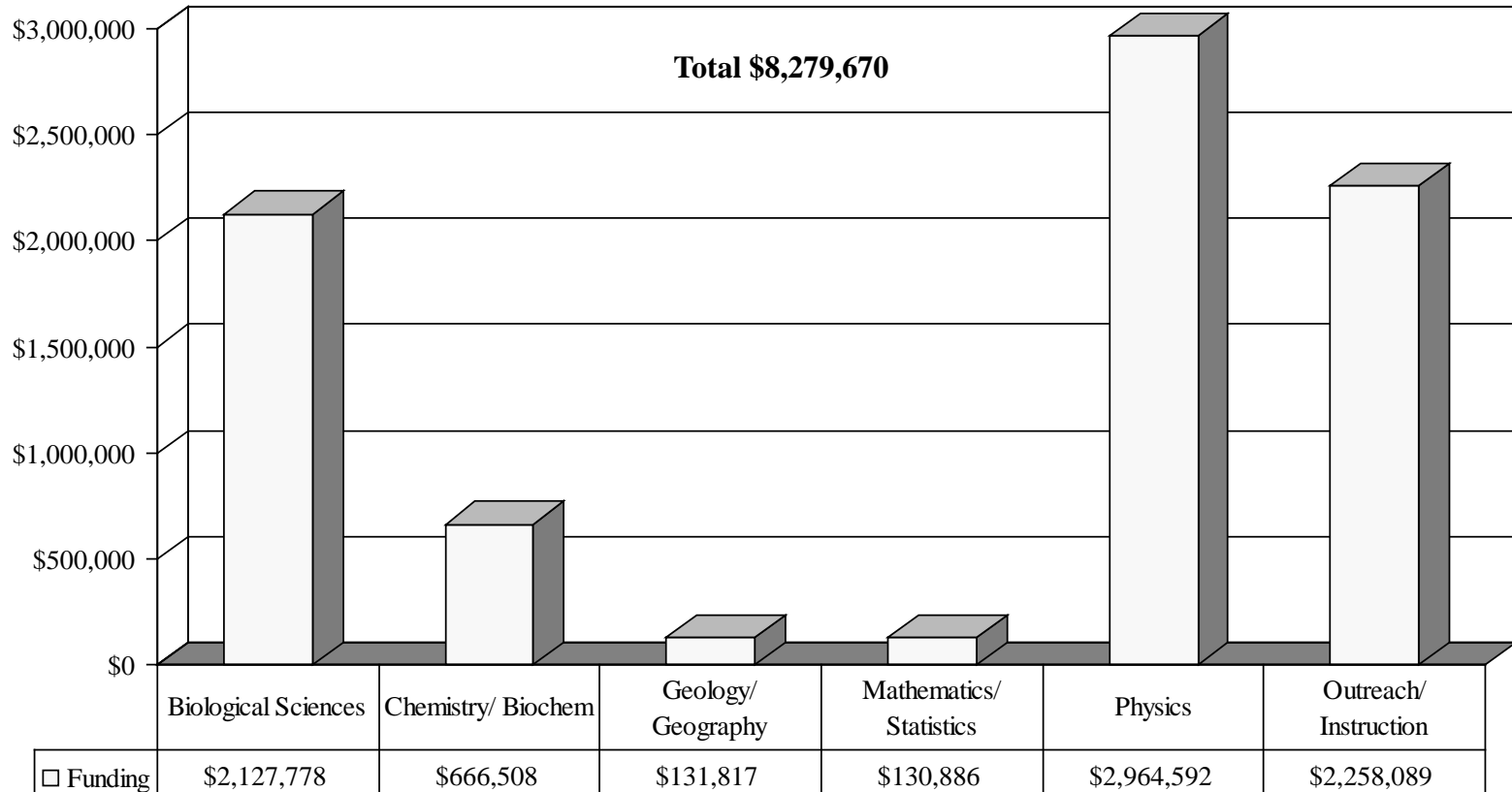
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# EXTRAMURAL FUNDING COSAM FY 2009-2013

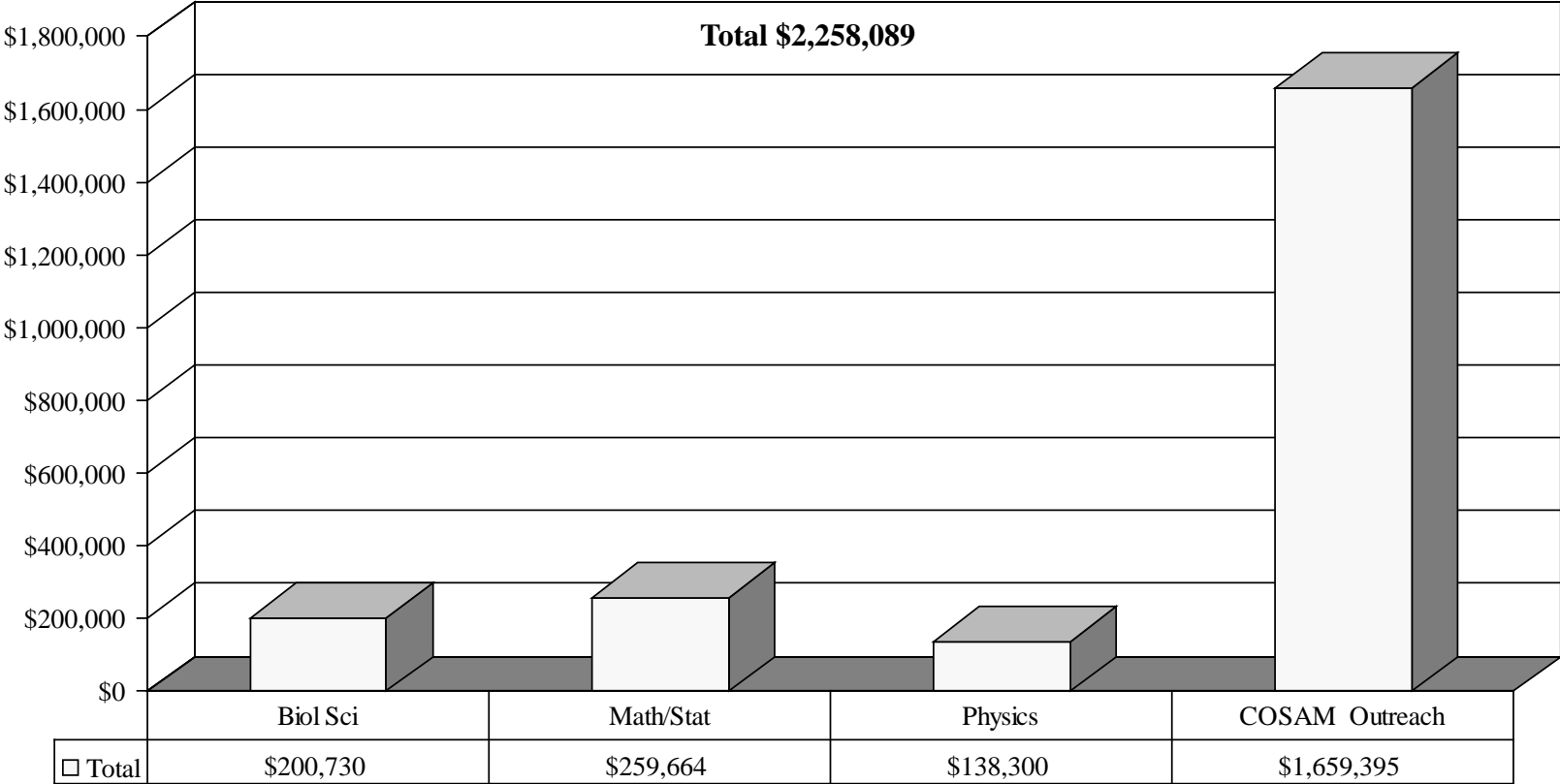


\*Updated since the FY 2012 Annual Report

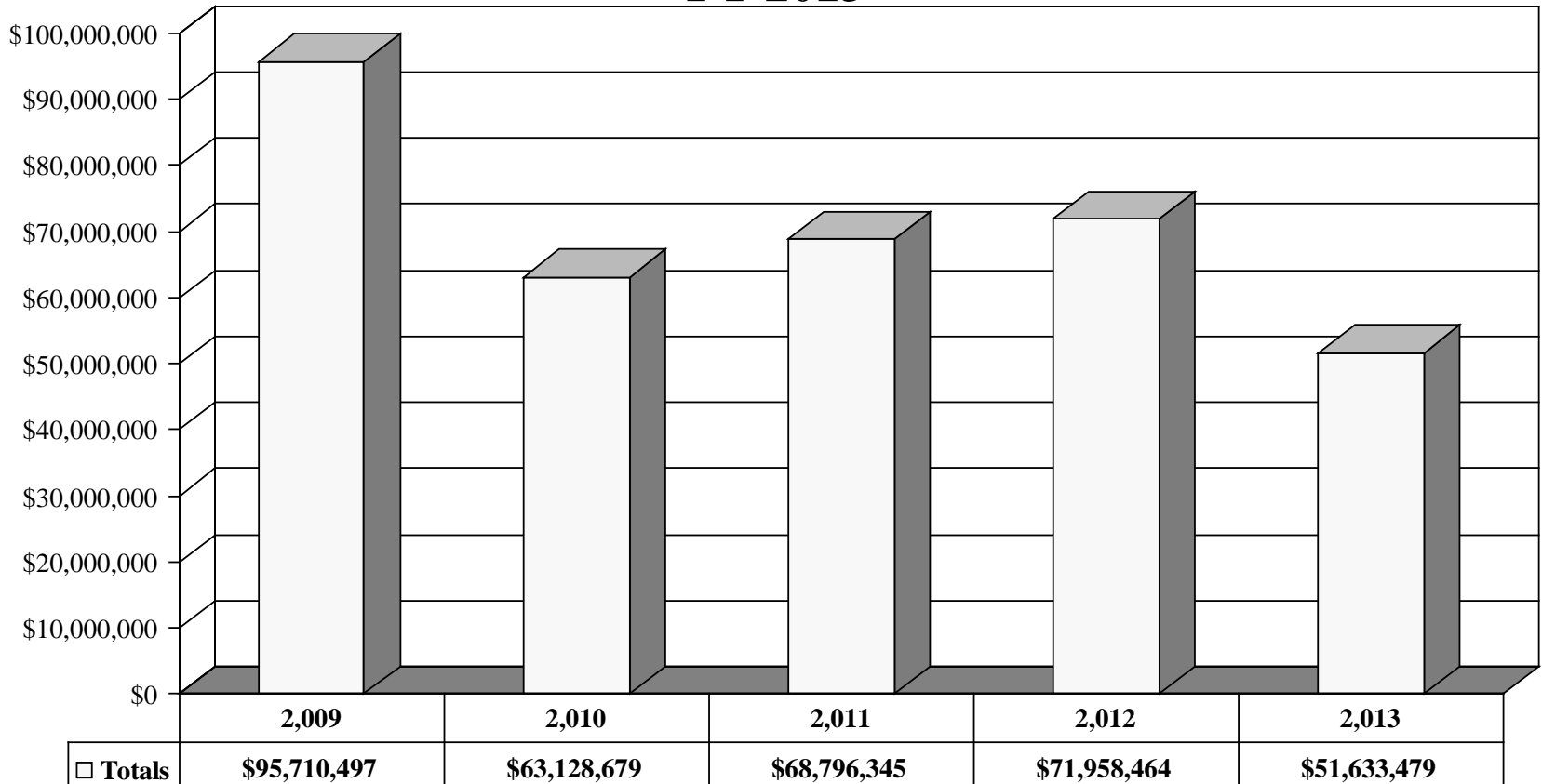
# EXTRAMURAL RESEARCH FUNDING COSAM DEPARTMENTS FY 2013



# EXTRAMURAL OUTREACH/INSTRUCTIONAL FUNDING COSAM DEPARTMENTS FY 2013



# EXTRAMURAL FUNDING AUBURN UNIVERSITY FY 2013



# COSAM EXTRAMURAL FUNDING BY DEPARTMENT 2009-2013

Dept Name	Number of proposals submitted for 2009-2013	Number of grants receiving new dollars for 2009-2013	Amount of funding for 2009-2013
<b>Biological Sciences</b>			
FY 2009	46	30	\$1,740,329
FY 2010	37	30	\$3,376,031
FY 2011	36	29	\$3,393,985
FY 2012	32	24	\$1,713,491*
FY 2013	53		
Research		23	\$2,127,778
Outreach/Instructional		2	\$200,730
<b>Total</b>	<b>204</b>	<b>138</b>	<b>\$12,552,344</b>
<b>Chemistry/Biochemistry</b>			
FY 2009	43	19	\$1,440,496
FY 2010	31	17	\$1,285,294
FY 2011	26	11	\$1,461,933
FY 2012	17	11	\$1,158,626
FY 2013	26		
Research		7	\$666,508
Outreach/Instructional		0	\$0
<b>Total</b>	<b>143</b>	<b>65</b>	<b>\$6,012,858</b>

# COSAM EXTRAMURAL FUNDING BY DEPARTMENT

## 2009-2013

Dept Name	Number of proposals submitted for 2009-2013	Number of grants receiving new dollars for 2009-2013	Amount of funding for 2009-2013
<b>Geology/Geography</b>			
FY 2009	24	14	\$1,064,903
FY 2010	18	7	\$136,897
FY 2011	13	6	\$221,095
FY 2012	18	4	\$155,407*
FY 2013	22		
Research		8	\$131,817
Outreach/Instructional		0	\$0
<b>Total</b>	<b>95</b>	<b>39</b>	<b>\$1,710,119</b>
<b>Mathematics/Statistics</b>			
FY 2009	11	16	\$1,623,696
FY 2010	8	6	\$338,160
FY 2011	9	3	\$158,000
FY 2012	11	0	\$0
FY 2013	14		
Research		4	\$130,886
Outreach/Instructional		3	\$259,664
<b>Total</b>	<b>53</b>	<b>32</b>	<b>\$2,510,406</b>



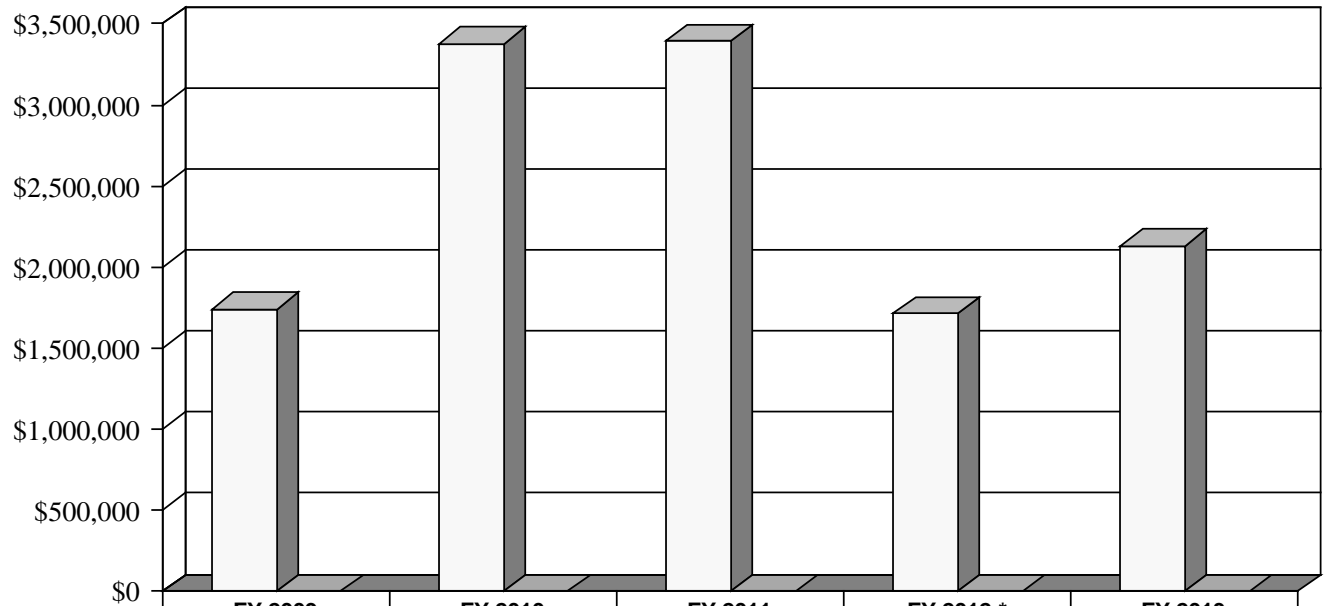
# COSAM EXTRAMURAL FUNDING BY DEPARTMENT 2009-2013

Dept Name	Number of proposals submitted for 2009-2013	Number of grants	
		receiving new dollars 2009-2013	for Amount of funding for 2009-2013
<b>Physics</b>			
FY 2009	29	45	\$5,356,462
FY 2010	33	34	\$4,014,914
FY 2011	30	30	\$4,297,126
FY 2012	24	21	\$2,523,769
FY 2013	38		
Research		27	\$2,964,592
Outreach/Instructional		2	\$138,300
<b>Total</b>	<b>154</b>	<b>159</b>	<b>\$19,295,163</b>
<b>COSAM Outreach</b>			
FY 2009		8	\$822,775
FY 2010		3	\$646,042
FY 2011		4	\$499,111
FY 2012		11	\$1,954,296
FY 2013		5	\$1,659,395
<b>Total</b>		<b>31</b>	<b>\$5,581,619</b>
<b>TOTALS FY 2009-2013</b>	<b>649</b>	<b>464</b>	<b>\$47,662,508</b>
<b>Totals FY 2013</b>	<b>153</b>	<b>81</b>	<b>\$8,279,670</b>

# EXTRAMURAL RESEARCH FUNDING HISTORY

## BIOLOGICAL SCIENCES

### FY 2009-2013



	FY 2009	FY 2010	FY 2011	FY 2012 *	FY 2013
□ Amount of new dollars in FY	\$1,740,329	\$3,376,031	\$3,393,985	\$1,713,491	\$2,127,778
□ Number of grants receiving new dollars	30	30	29	25	23

\*Updated since the FY 2012 Annual Report

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013  
BIOLOGICAL SCIENCES  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Armbruster, Jonathan W.	Collaborative PBI: ALL cybriniformes species- Phase II of an inventory of the otophysyi	\$177,308	100%	NSF-National Science Foundation	9/1/2010	8/31/2014
Armbruster, Jonathan W.	Documenting new undescribed species of the cavefish genus Typhlichthys (Percopsiformes: Amblyopsidae) in Alabama	\$10,000	100%	ADCNR-Alabama Dept of Conservation & Natural Resources	10/1/2012	9/30/2013
Best, Troy L.	Monitoring populations of lesser prairie chickens on BLM administered lands in SE New Mexico	\$44,242	100%	USDI - Bureau of Land Management	9/1/2011	9/30/2016
Bond, Jason E.	Dissertation research: Species delimitation and the evolution of dwarfism in the North American tarantula genus Aphonopelma	\$19,240	100%	NSF-National Science Foundation	7/1/2013	6/30/2015
Bond, Jason E.	Filling the gaps: Molecular phylogeny, species distributions and habit characteristics of the highly endemic silt snail genus, Floridobia	\$28,904	100%	Stetson University	7/1/2013	6/30/2015
Bond, Jason E.	NSF Graduate Research Fellowship Program (Nicole Garrison)	\$14,087	100%	NSF-National Science Foundation	6/1/2012	5/31/2014
Bond, Jason E.	Millipede systematics: Developing phylogenomic, classification and taxonomic resources	\$17,082	100%	NSF-National Science Foundation	5/15/2013	4/30/2016

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**BIOLOGICAL SCIENCES**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Bond, Jason E.	Millipede systematics: Developing phylogenomic, classification and taxonomic resources	\$372,284	100%	NSF-National Science Foundation	5/15/2013	4/30/2016
Bond, Jason E.	Millipede Systematics: Developing phylogenomic, classification, and taxonomic resources	\$185,501	100%	NSF-National Science Foundation	5/15/2013	4/30/2016
Bond, Jason E.	Millipede Systematics: Developing phylogenomic, classification, and taxonomic resources	\$9,182	100%	NSF-National Science Foundation	5/15/2013	4/30/2016
Feminella, John W.	Development of ecological reference models and assessment framework for streams of the Atlantic	\$119,000	100%	Savannah River Nuclear Solutions, LLC	6/5/2009	6/1/2013
Folkerts, Debbie R.	Investigation of pitcher plant arthropod decline and conservation	\$8,600	100%	USDI - FWS - US Dept of the Interior - Fish & Wildlife Service	7/1/2012	6/30/2015
Halanych, Kenneth M.	Elucidating the early history of metazoans	\$199,438	100%	NASA - National Aeronautics and Space Administration Headquarters	4/18/2013	4/17/2017
Helms, Brian	Population structure of the Slackwater crayfish ( <i>Cambarus halli</i> ) and the Tallapoosa crayfish ( <i>Cambarus englishi</i> ) in the Tallapoosa Basin	\$15,400	100%	ADCNR-Alabama Dept of Conservation & Natural Resources	10/1/2012	9/30/2013

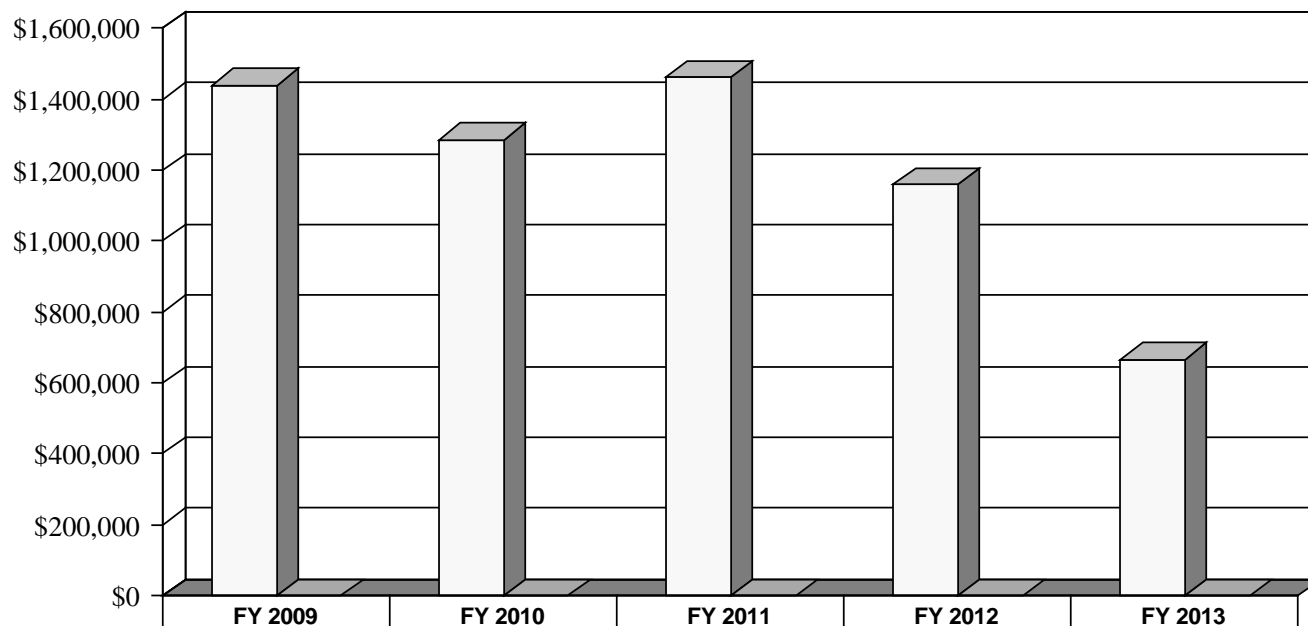
**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013  
BIOLOGICAL SCIENCES  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Hill, Geoffrey	NSF graduate research fellowship program	\$38,951	100%	NSF-National Science Foundation	9/1/2012	8/31/2013
Hill, Geoffrey	NSF Graduate Research Fellowship Program (Rebecca Koch)	\$21,192	100%	NSF-National Science Foundation	9/1/2012	8/31/2014
Hood, Wendy R.	NSF Graduate Research Fellowship Program (Alexandra Bentz)	\$24,500	100%	NSF-National Science Foundation	9/1/2013	8/31/2014
Liles, Mark R.	Evaluation of probiotic bacillus strains for use in aquaculture	\$250	100%	Novus International, Inc.	11/9/2010	5/8/2012
Liles, Mark R.	Cooperative R & D on votivo proposal to Bayer Crop Science	\$35,884	100%	Bayer (Agriculture Division)	11/29/2011	11/28/2013
Liles, Mark R.	Commercial potential for diagnostics and a vaccine targeting epidemic aeromonas hydrophila	\$50,000	100%	NSF-National Science Foundation	5/1/2013	10/31/2013
Santos, Scott R.	Dissertation research: Assessing the evolution of euryahlinity in acnhialine shrimps	\$11,044	100%	NSF-National Science Foundation	6/1/2013	5/31/2015

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**BIOLOGICAL SCIENCES**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Schwartz, Elizabeth H	Impact of bacterial infection on myeloid DC development	\$444,000	100%	DHHS-PHS-NIH-NIAID-National Institute of Allergies & Infectious Diseases	8/1/2013	7/31/2014
Wooten, Michael C.	Mechanisms of ubiquitin in neurons	\$281,689	100%	DHHS-PHS-NIH-National Institute of Health	1/15/2010	12/31/2013
<b>Biological Sciences Total</b>		<b>\$2,127,778</b>				
<b>Biological Sciences Count</b>		<b>23</b>				

# EXTRAMURAL RESEARCH FUNDING HISTORY CHEMISTRY & BIOCHEMISTRY FY 2009-2013



	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
□ Amount of new dollars in FY	\$1,440,496	\$1,285,294	\$1,461,933	\$1,158,626	\$666,508
□ Number of grants receiving new dollars	19	17	11	11	7

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013  
CHEMISTRY & BIOCHEMISTRY  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Duin, Eduardus C.	Iron-sulfur clusters in the evolution of the enzymatic synthesis of RNA	\$30,755	100%	University of Arkansas	1/14/2013	1/13/2017
Easley, Christopher J.	Interrogating dynamics of acute secretion of adiponectin multimers from adipose tissue	\$271,514	88%	DHHS PHS-NIH-NIDDK-National Inst for Diabetes, Digestive & Kidney Diseases	6/8/2012	5/31/2014
Easley, Christopher J.	MRI: Development of multi-parametric/multimodel spectroscopy (MPMS) apparatus for characterization of functional interfaces	\$12,604	100%	NSF-National Science Foundation	9/1/2013	8/31/2015
Easley, Christopher J.	Cooperative approaches for aptamer selection and protein detection (supplemental funding req.)	\$61,999	100%	NSF-National Science Foundation	7/1/2011	6/30/2014
Gorden, Anne Elizabeth V.	Molecular recognition and selective sequestration for detection of uranium, neptunium, or plutonium	\$145,832	100%	DOD-DTRA-Defense Threat Reduction Agency	8/1/2011	7/31/2014
Mills, German	Nanostructure-enhanced phase change materials & HRD coordination	\$42,476	100%	UAT - University of Alabama Tuscaloosa	8/15/2013	8/14/2015



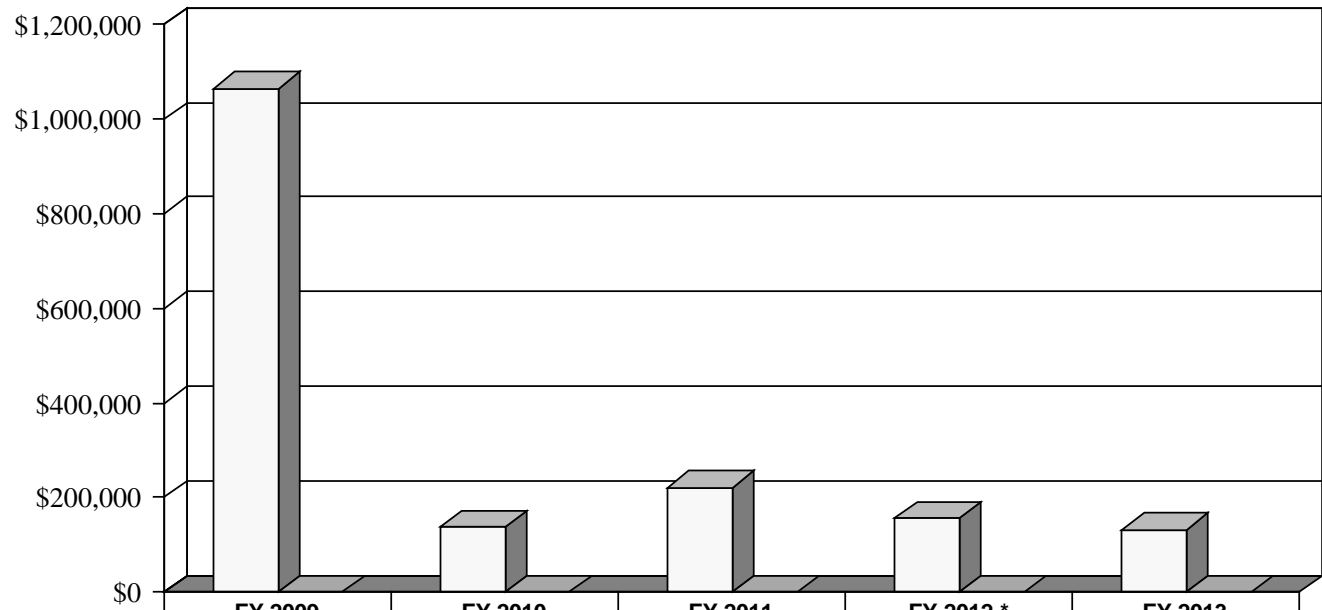
**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013  
CHEMISTRY & BIOCHEMISTRY  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Neely, William C.	A unified bio-chemical engineering approach to heat and chemical de-activation of biological warfare agents	\$101,328	100%	Pennsylvania State University	2/1/2010	3/31/2014
<b>Chemistry &amp; BioChemistry Total</b>		<b>\$666,508</b>				
<b>Chemistry &amp; BioChemistry Count</b>		<b>7</b>				

# EXTRAMURAL RESEARCH FUNDING HISTORY

## GEOLOGY & GEOGRAPHY

### FY 2009-2013



	FY 2009	FY 2010	FY 2011	FY 2012 *	FY 2013
□ Amount of new dollars in FY	\$1,064,903	\$136,897	\$221,095	\$155,407	\$131,817
□ Number of grants receiving new dollars	14	7	6	5	8

\*Updated since the FY 2012 Annual Report

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**GEOLOGY & GEOGRAPHY**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Marzen, Luke J.	Urban forestry: i-Tree eco development project	\$6,833	33%	USDA - Forest Service	7/17/2013	9/30/2015
Saunders, James A.	Transport and deposition of metallic nanoparticles as a hydrothermal ore-forming process	\$62,194	100%	NSF-National Science Foundation	2/15/2013	1/31/2016
Steltenpohl, Mark G.	Geology of the 1:24,000 Buttston, AL quadrangle	\$14,933	100%	USDI - U.S. Geological Survey	9/1/2013	8/31/2014
Wolf, Lorraine W.	Paleoliquefaction studies in moderate seismicity regions with a history of large events	\$16,399	100%	Tuttle and Associates, Georgetown, Maine	8/24/2011	5/12/2012
Wright, Shawn Patrick	A fresh perspective on ancient martin volcanism: Investigation of new types of highland volcanic constructs in Arabia Terra and beyond	\$4,078	100%	Planetary Science Institute	5/18/2012	5/17/2014
Wright, Shawn Patrick	A fresh perspective on ancient martian volcanism: Investigation of new types of highland volcanic constructs in Arabia Terra and beyond	\$9,441	100%	Planetary Science Institute	5/2/2013	5/1/2016

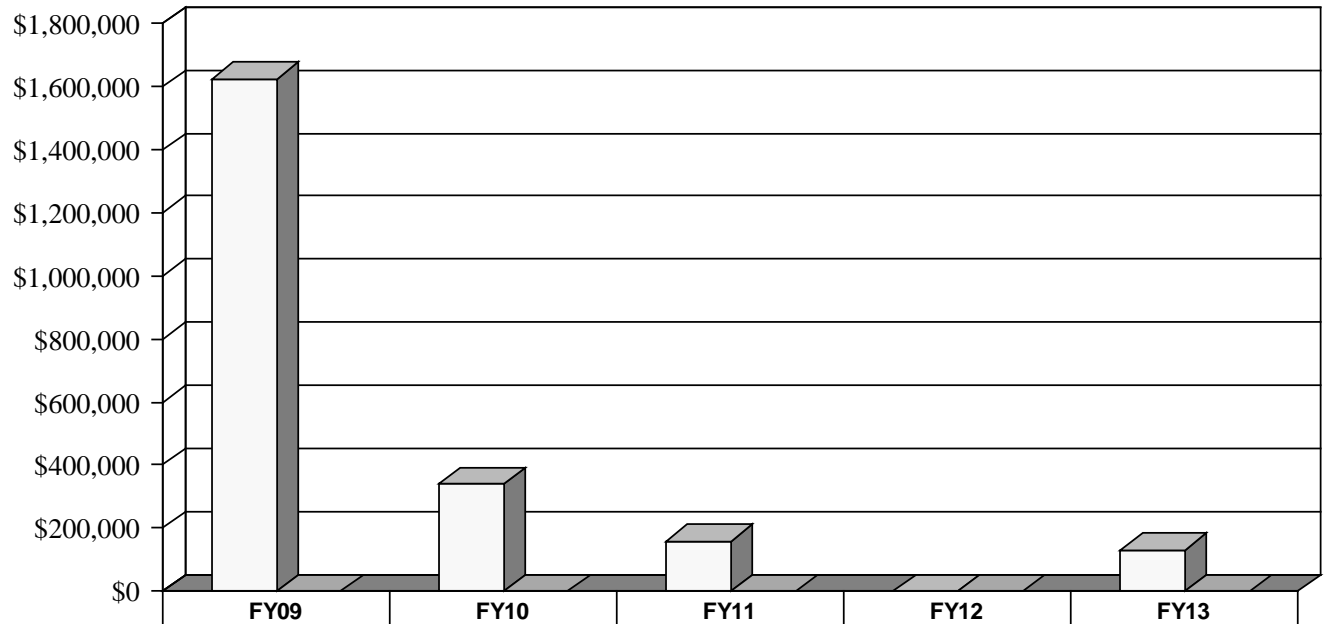
**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**GEOLOGY & GEOGRAPHY**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Wright, Shawn Patrick	A fresh perspective on ancient martian volcanism: Investigation of new types of highland volcanic constructs in Arabia Terra and beyond	\$7,922	100%	Planetary Science Institute	5/18/2012	5/17/2014
Wright, Shawn Patrick	Field and laboratory studies of hydrovolcanic tephra and impact ejecta: Application to Mars rover investigations	\$10,017	100%	Space Science Institute	6/8/2012	4/9/2015
	<b>Geology &amp; Geography Total</b>	<b>\$131,817</b>				
	<b>Geology &amp; Geography Count</b>	<b>8</b>				

# EXTRAMURAL RESEARCH FUNDING HISTORY

## MATHEMATICS & STATISTICS

### FY 2009-2013



	FY09	FY10	FY11	FY12	FY13
□ Amount of new dollars in FY	\$1,623,696	\$338,160	\$158,000	\$0	\$130,886
□ Number of grants receiving new dollars	16	6	3	0	4

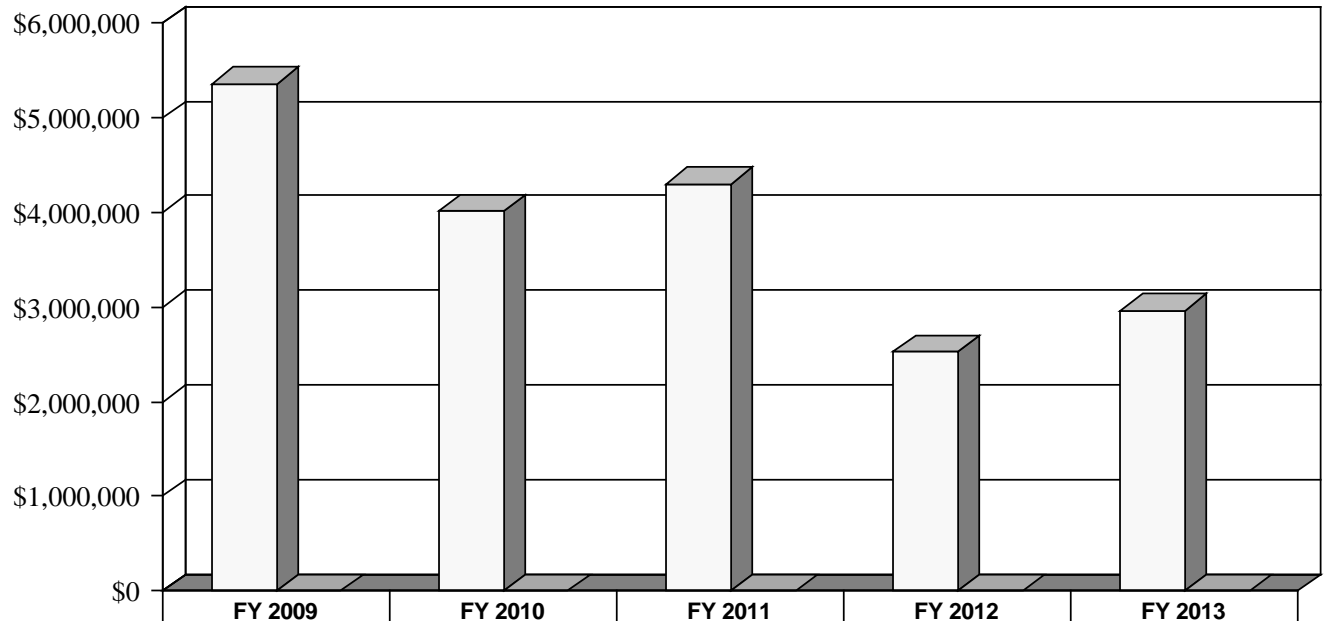
**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**MATHEMATICS & STATISTICS**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Cao, Yanzhao	Fast numerical methods for stochastic partial differential equations	\$50,000	100%	Florida A & M University	7/1/2012	6/30/2013
Jenda, Overtoun M.	Research experience for undergraduates in algebra and discrete mathematics at Auburn University	\$44,800	100%	NSF-National Science Foundation	3/1/2013	2/29/2016
Jenda, Overtoun M.	Research experience for undergraduates in algebra and discrete mathematics at Auburn University	\$22,786	100%	NSF-National Science Foundation	3/1/2013	2/29/2016
Zeng, Peng	Elucidation of feedstock-microbe interactions for butanol production from lignocellulosic biomass	\$13,300	10%	University of Tennessee-Southeastern Sun Grant Initiative	4/1/2013	3/31/2015
<b>Mathematics &amp; Statistics Total</b>		<b>\$130,886</b>				
<b>Mathematics &amp; Statistics Count</b>			<b>4</b>			

# EXTRAMURAL RESEARCH FUNDING HISTORY

## PHYSICS

### FY 2009-2013



	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
□ Amount of new dollars in FY	\$5,356,462	\$4,014,914	\$4,297,126	\$2,523,769	\$2,964,592
□ Number of grants receiving new dollars	45	34	30	21	27

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013  
PHYSICS  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Ballance, Connor Peter	Photoexcitation, photoabsorption and spectra of low ionization fe-peak species	\$32,671	100%	Western Michigan University	8/15/2013	7/31/2014
Dhar, Sarit	PFI: BIC-Advanced SiC high temperature integrated circuits	\$596,277	100%	NSF-National Science Foundation	8/1/2013	7/31/2015
Dhar, Sarit	PFI: BIC-Advanced SiC high temperature integrated circuits	\$2,500	100%	NSF-National Science Foundation	8/1/2013	7/31/2015
Dhar, Sarit	Optimization of the Sio2/4H-SiC interface for power MOSFET application: Investigation of modified growth and interface passivation processes	\$67,500	100%	DOD-US Army-ARL-Army Research Laboratory	9/22/2010	6/23/2014
Dhar, Sarit	CRI-SiO2/4H-SiC interface optimization for next generation power MOSFETs	\$97,135	100%	II-VI Foundation	7/1/2013	6/30/2014
Dhar, Sarit	High reliability SiC power MOSFETs for energy efficient power electronics infrastructure	\$67,685	100%	Monolith Semiconductor, Inc.	7/1/2013	6/30/2014
Dhar, Sarit	Advanced high voltage silicon carbide insulated gate bipolar transistor (IGBT)	\$212,969	100%	United Silicon Carbide, Inc.	7/12/2013	11/30/2014



**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013  
PHYSICS  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Fogle, Michael R.	Catalyzing a new international collaboration to study the dynamics of complex systems with ion storage rings	\$21,511	100%	NSF-National Science Foundation	5/15/2013	4/30/2014
Hanson, James D.	3D equilibrium reconstruction and MHD studies in stellarators	\$100,000	100%	DOE - United States Department of Energy	11/1/2003	10/31/2013
Knowlton, Stephen F.	MHD stability and equilibrium in a current-driven stellarator-tokamak hybrid	\$540,000	100%	DOE - United States Department of Energy	9/1/2000	3/31/2014
Landers, Allen Lee	Imaging multi-particle atomic and molecule dynamics	\$120,000	100%	DOE - United States Department of Energy	4/1/2010	6/30/2014
Lin, Yu	A simulation study of mode conversion associated with kinetic alfven waves	\$135,000	100%	DOE - United States Department of Energy	8/15/2013	8/14/2014
Lin, Yu	Observations and hybrid simulations of fast flows in the magnetotail	\$23,986	100%	Johns Hopkins University	4/26/2013	1/31/2016
Liu, Kaijun	Collaborative research: An integrated study of fast magnetosonic waves in the radiation belts	\$80,148	100%	NSF-National Science Foundation	7/1/2013	6/30/2014

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**PHYSICS**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Liu, Kaijun	Chorus excitation and relativistic electron scattering	\$119,998	100%	NASA - National Aeronautics and Space Administration Headquarters	2/1/2013	1/31/2015
Park, Minseo	Surface plasmonic resonance effects of doped ZnO on light extraction efficiency in OLEDs	\$25,733	80%	Korea Institute of Industrial Technology	4/1/2013	12/1/2013
Perez, Joseph D.	TWINS mission operations and data analysis, Phase F- Extended mission (FY2013)	\$25,011	100%	SWRI - Southwest Research Institute	6/1/2009	9/30/2013
Pindzola, Michael S.	Few body dynamics of atomic and molecular systems	\$60,000	100%	NSF-National Science Foundation	9/1/2013	8/31/2016
Pindzola, Michael S.	Theoretical atomic and molecular physics for controlled fusion energy	\$75,000	100%	DOE - United States Department of Energy	1/1/2000	12/31/2013
Robicheaux, Francis J.	Atoms and ions interacting with particles and fields	\$90,000	100%	DOE - United States Department of Energy	8/1/2000	1/31/2014

**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**PHYSICS**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Thomas, Edward E.	PLASMALAB: Measurements	\$80,000	100%	California Institute of Technology-Jet Propulsion Laboratory DOE - United States	12/17/2012	12/31/2013
Thomas, Edward E.	Physics of magnetized dusty plasmas	\$2,500	100%	Department of Energy DOE - United States	8/15/2013	8/14/2014
Thomas, Edward E.	Physics of magnetized dusty plasmas	\$247,500	100%	Department of Energy	8/15/2013	8/14/2014
Thomas, Edward E.	Collaborative research: Physics of magnetized dusty plasmas (undergraduate support)	\$5,000	100%	NSF-National Science Foundation	8/1/2013	7/31/2016
Wersinger, Jean-Marie	Auburn University student space program- AubieSat	\$13,185	50%	UAH - University of Alabama at Huntsville	5/6/2010	5/5/2015
Williams, John R.	CRI-SiO2/4H-SiC interface optimization for next generation power MOSFETs	\$24,865	100%	II-VI Foundation	7/1/2013	6/30/2014

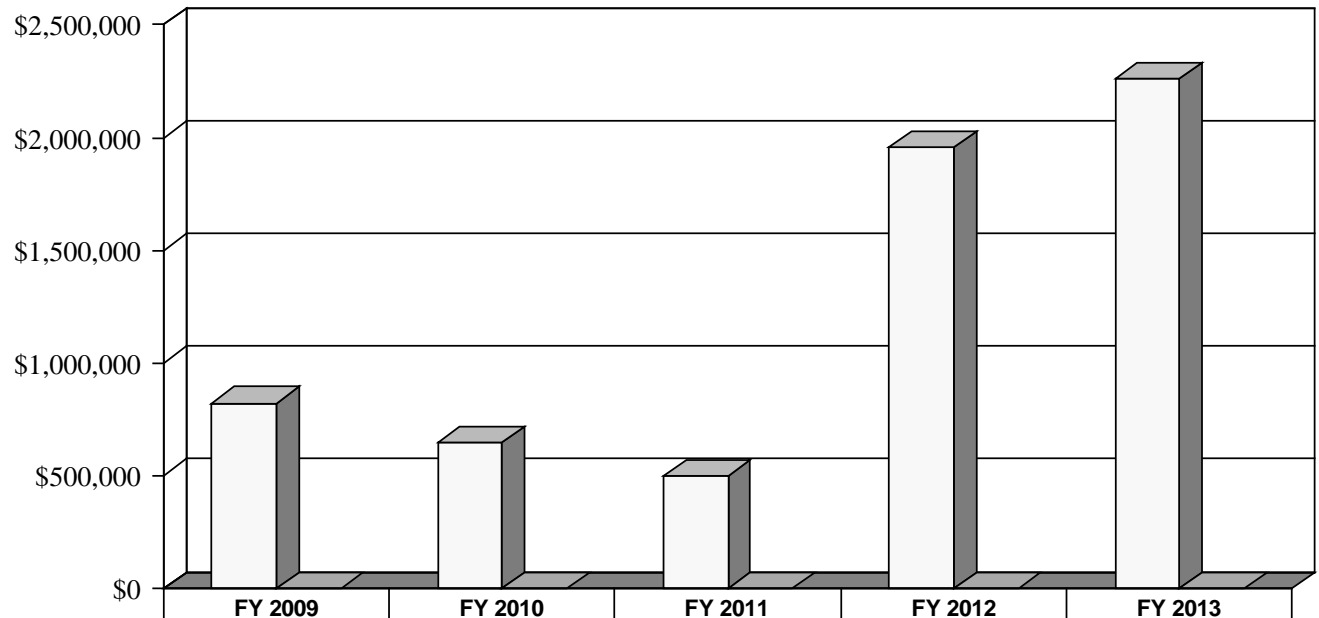
**EXTRAMURAL RESEARCH GRANTS WITH NEW DOLLARS RECEIVED IN FY 2013**  
**PHYSICS**  
**10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Williams, John R.	GOALI/FRG: The oxidation of silicon carbide and structure-defects-mobility relations	\$98,418	100%	Vanderbilt University	9/15/2009	8/31/2013
	<b>Physics Total</b>	<b>\$2,964,592</b>				
	<b>Physics Count</b>	<b>27</b>				

# EXTRAMURAL FUNDING HISTORY

## OUTREACH AND INSTRUCTION FOR ALL COSAM DEPARTMENTS

### FY 2009-2013



	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
□ Amount of new dollars	\$822,775	\$646,042	\$499,111	\$1,954,296	\$2,258,089
□ Number of grants receiving new dollars	8	3	4	11	12

**EXTRAMURAL OUTREACH & INSTRUCTION GRANTS WITH NEW DOLLARS  
RECEIVED IN FY 2013  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
<b>Biological Sciences</b>						
Hill, Geoffrey	Intergovernmental personnel act (IPA) NSF assignment	\$185,735	100%	NSF-National Science Foundation	8/26/2013	8/25/2014
Wada, Haruka	Meeting: Adaptation or development constraint? Uniting evolutionary theory and empirical studies of phenotypic plasticity	\$14,995	100%	NSF-National Science Foundation	9/15/2013	8/31/2014
<b>Biological Sciences Total</b>		<b>\$200,730</b>				
<b>Biological Sciences Count</b>		<b>2</b>				
<b>Mathematics &amp; Statistics</b>						
Meir, Amnon J.	Intergovernment personnel act (IPA) NSF assignment	\$166,064	100%	NSF-National Science Foundation	8/12/2013	8/11/2014
Stuckwisch, Stephen E.	TEAM-Math and AMSTI mathematics professional learning communities partnership	\$25,196	40%	Alabama Dept. of Education - ALDoEd	10/1/2012	9/30/2013
Stuckwisch, Stephen E.	TEAM-Math and AMSTI mathematics professional learning communities partnership	\$68,404	40%	Alabama Dept. of Education - ALDoEd	10/1/2012	9/30/2013
<b>Mathematics &amp; Statistics Total</b>		<b>\$259,664</b>				
<b>Mathematics &amp; Statistics Count</b>		<b>3</b>				

**EXTRAMURAL OUTREACH & INSTRUCTION GRANTS WITH NEW DOLLARS  
RECEIVED IN FY 2013  
10/01/2012 – 09/30/2013**

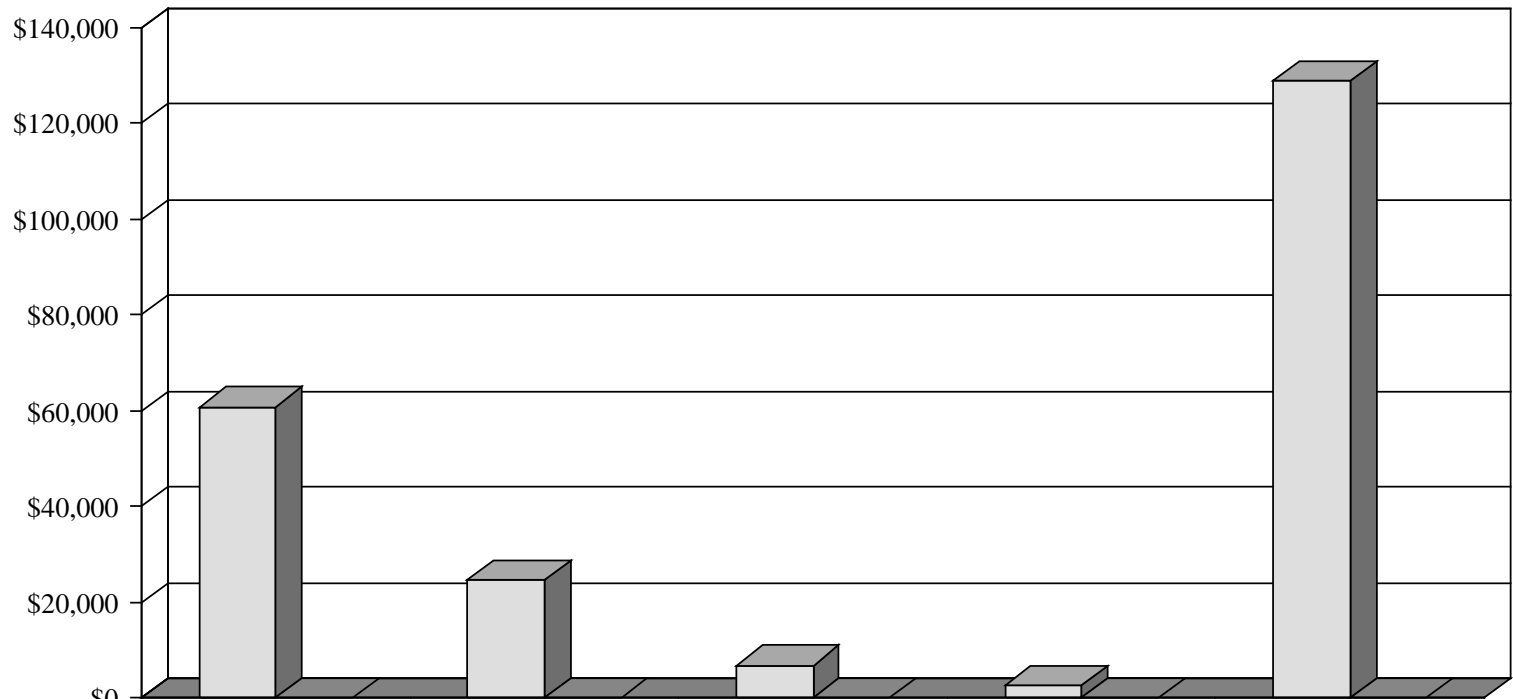
PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
<b>Physics</b>						
Landers, Allen Lee	Robotics and engineering education fostering the conceptual understanding of science	\$31,680	60%	Alabama Dept. of Education - ALDoEd	3/1/2013	9/30/2013
Landers, Allen Lee	Robotics and engineering education fostering the conceptual understanding of science	\$106,620	60%	Alabama Dept. of Education - ALDoEd	3/1/2013	9/30/2013
<b>Physics Total</b>		<b>\$138,300</b>				
<b>Physics Count</b>		<b>2</b>				
<b>COSAM Outreach</b>						
Ewald, Mary L.	Alabama math, science and technology initiative (AMSTI-AU) FY14	\$30,120	60%	Alabama Dept. of Education - ALDoEd	10/1/2013	9/30/2014
Ewald, Mary L.	Alabama math, science and technology initiative (AMSTI-AU) FY14	\$872,880	60%	Alabama Dept. of Education - ALDoEd	10/1/2013	9/30/2014
Ewald, Mary L.	Auburn University Alabama Science in Motion FY14	\$360,735	100%	Alabama Dept. of Education - ALDoEd	10/1/2013	9/30/2014

**EXTRAMURAL OUTREACH & INSTRUCTION GRANTS WITH NEW DOLLARS  
RECEIVED IN FY 2013  
10/01/2012 – 09/30/2013**

PI NAME	PROJECT TITLE	DOLLARS RECEIVED	% CREDIT	SPONSOR	BEGIN DATE	END DATE
Ewald, Mary L.	Auburn University Alabama science in motion	\$330,135	100%	Alabama Dept. of Education - ALDoEd	10/1/2012	9/30/2013
Wit, Lawrence C.	Rural medicine program	\$65,525	100%	Alabama Dept of Public Health - ALDoPH	7/1/2010	9/30/2013
	<b>Outreach Total</b>	<b>\$1,659,395</b>				
	<b>Outreach Count</b>	<b>5</b>				
	<b>Outreach &amp; Instruction Grand Total</b>	<b>\$2,258,089</b>				
	<b>Outreach &amp; Instruction Grand Count</b>	<b>12</b>				



# EXTRAMURAL FUNDING (New Dollars Received per Faculty Member) by Department FY 2013



	Biological Sciences	Chemistry/Biochem	Geology/Geography	Mathematics/Statistics	Physics
□ \$ per Faculty Member	\$60,794	\$24,685	\$6,938	\$2,618	\$128,895
■ Number of Faculty	35	27	19	50	23

## COSAM PATENTS, TRADEMARKS and COPYRIGHTS FY 2012 to FY 2013

<b>Year\$</b>	<b>Number of Disclosures</b>	<b>Number of US Patent Applications (1)</b>	<b>Number of US Patent, Trademarks, and Copyrights Issued</b>	<b>Number of License/Option Agreements (2)</b>	<b>Number of NDA, MOU, MTA, Amends, Teaming, Testing (3)</b>	<b>Total Revenue of Option and License Income</b>	<b>Total Revenue of Option and License Income, Royalty Receipts and Patent Reimbursement</b>
FY 2012	11	16	7	1	20	\$459,480	\$468,960
FY 2013	3	10	4	0	29	\$455,308	\$465,308