

# 2018 SIGMA XI RESEARCH AWARD WINNERS

## Georgia Institute of Technology Chapter

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### FACULTY AWARDS

**Sustained Research:** (with a plaque, certificate, and \$5,000)

- Professor Jeffrey Skolnick, Professor (Biological Sciences)

*Committee: William Koros, Chair (ChBE), Alfred Merrill (BioSci), Jianjun Shi (ISYE), Zhuomin Zhang (ME)*

**Best Faculty Paper:** (with a plaque, certificate, and \$2,500 each)

- Glaucio H. Paulino (CEE) & H. Jerry Qi (ME) (split award)
- Gleb Yushin (MSE)

*Committee: Zhiquan Lin, Chair (MSE), Sankar Nair (ChBE)*

**Young Faculty Award:** (with a plaque, certificate, and \$2,500 each)

- Devi Parikh, Assistant Professor (Interactive Computing)
- William Ratcliff, Assistant Professor (Biological Sciences)

*Committee: Ryan Lively, Chair (ChBE), Stefan France (CHEM), Daniel Goldman (Physics), Omer Inan (ECE)*

### STUDENT AWARDS

**Best PhD. Thesis:** (with a plaque, certificate, and \$1,000 each)

<b>Award Recipient</b>	<b>School</b>	<b>Advisor</b>
Taiyun Chi	ECE	Hua Wang
Sourav Dutta	ECE	Azad Naeemi
Matthew Hale	ECE	Magnus Egerstedt
Mohammad Mahdi Hasani-Sadrabdi	ME	Karl Jacob
Shoufeng Lan	ECE	Wenshen Cai
Tianyuan Liu	ME	Seung Woo Lee
Deepa Phanish	ECE	Edward Coyle
Ellen Skow	ME	Kenneth Cunefare
Weijun Xie	ISYE	Shabbir Ahmed
Yuksel Yabansu	ME	Surya Kalindindi

*Committee: John Cressler, Chair (ECE), Ali Adibi (ECE), Maysam Ghovanloo (ECE), Shreyes Melkote (ME), Raquel Lieberman (Chemistry)*

**Best Master's Thesis:** (with a plaque, certificate, and \$500 each)

<b>Award Recipient</b>	<b>School</b>	<b>Advisor</b>
Timothy Ibru	ME	Antonia Antoniou and Kyriaki Kalitzidou
Shruthi Vadivel	ECE	Thomas Gaylord

*Committee: Sally Ng, Chair (ChBE), Paul Kohl (ChBE)*

# 2017 SIGMA XI RESEARCH AWARD WINNERS

## Georgia Institute of Technology Chapter

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### FACULTY AWARDS

**Sustained Research:** (with a plaque, certificate, and \$5,000)

- Professor William J. Koros, Professor (ChBE)

*Committee: Zhuomin Zhang, Chair (ME), Mark Borodovsky (ME), Stephen Ralph (ECE), Jianjun Shi (ISYE), Peter Webster (EAS)*

**Best Faculty Paper:** (with a plaque, certificate, and \$2,500 each)

- Raquel Lieberman, Assistant Professor (Chemistry)
- Zhiqun Lin, Assistant Professor (MSE)

*Committee: Younan Xia, Chair (BME), Ravi Kane (ChBE), Christine Payne (Chemistry)*

**Young Faculty Award:** (with a plaque, certificate, and \$2,500 each)

- Omer Inan, Assistant Professor (ECE)
- Ryan Lively, Assistant Professor (ChBE)

*Committee: Hua Wang, Chair (ECE), Melinda Millard-Stafford (AP), Sally Ng (ChBE), Mark Styczynski (ChBE), Santosh Vempala (CC)*

### STUDENT AWARDS

**Best PhD. Thesis:** (with a plaque, certificate, and \$1,000 each)

<b>Award Recipient</b>	<b>School</b>	<b>Advisor</b>
Ehsan Hosseinian (ME)	Mechanical Engineering	Olivier Perron
Xianglei Liu	Mechanical Engineering	Zhuomin Zhang
Nelson Lourenco	Electrical and Computer Engineering	John Cressler
Reza Pourabolhasem	Electrical and Computer Engineering	Ali Adibi
Bladimir Ramos	Mechanical Engineering	G.P. "Bud" Peterson
Luis Miguel Rodriguez	Biology	Konstantinos
Can Temel	Electrical and Computer Engineering	Ghassan AlRegib
Despina Tsementzi	Civil and Environmental Engineering	Konstantino
Lu Xu	Chemical and Biomolecular	Sally Ng
ShuoZhi Xu	Mechanical Engineering	David McDowell

*Committee: Vladimir Tsukruk, Chair (MSE), Ali Adibi (ECE), Andrei Federov (ME), Alberto Fernandez-Nieves (Physics), Zhiqun Lin (MSE)*

**Best Master's Thesis:** (with a plaque, certificate, and \$500 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
Vinh Nguyen	Mechanical Engineering	Shryes Melkote

*Committee: Devesh Ranjan, Chair (ME), Wenshan Cai (MSE)*

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$200 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
David Heaner	Chemistry	Raquel Lieberman

*Committee: Ted Russell, Chair (CEE), Brian Stone (COD)*

# 2016 SIGMA XI RESEARCH AWARD WINNERS

## Georgia Institute of Technology Chapter

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### FACULTY AWARDS

**Sustained Research:** (with a plaque, certificate, and \$5,000)

- Professor Peter J. Webster, Professor (EAS)

*Committee: Mark Borodovsky, Chair (BME), Paul Kohl, (ChBE), Mostafa El-Sayed (Chemistry), Alfred Merrill (Biology), Peter Hesketh (ME)*

**Best Faculty Paper:** (with a plaque, certificate, and \$2,500 each)

- Baratunde Cola, Associate Professor (ME),
- Younan Xia, Professor (Chemistry, ChBE, BME)

*Committee: Francesca Storici, Chair (Biology), Stavros Garoufalidis (MATH), Chris Jones (ChBE), David Hu, (ME)*

**Young Faculty Award:** (with a plaque, certificate, and \$2,500 each)

- Nga Lee(Sally) Ng, Assistant Professor (ChBE, EAS)
- Hua Wang, Assistant Professor (ECE)

*Committee: James Wray, Chair (EAS), Sankar Nair (ChBE), Phillip First (Physics), Min Zhou (ME), Meilin Liu (MSE)*

### STUDENT AWARDS

**Best PhD. Thesis:** (with a plaque, certificate, and \$1,000 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
Guillermo J. Amador	Mechanical Engineering	David L. Hu
Brittany L. Bruder	Civil & Environmental Engineering	Kevin A. Haas
Adam S. Charles	Electrical & Computer Engineering	Christopher Rozell
Long Lin	Materials Science & Engineering	Zhong. Lin. Wang
Alireza MahdaviFar	Mechanical Engineering	Peter J. Hesketh
Matthew Plumlee	Industrial & Systems Engineering	Jian Jun Shi
		Roshan J. Vengazhiyil
Majid Sodagar	Electrical & Computer Engineering	Ali Adibi
Amit Ranjan Trivedi	Electrical & Computer Engineering	Saibal Mukhopadhyay
Weinan Xu	Materials Science & Engineering	Vladimir V. Tsukruk

*Committee: Yongsheng Chen, Chair (CEE), Alexander Alexeev (ME), Ryan Lively (ChBE), Mark Hay (Biology), Tom Fuller (ChBE), Maysam Ghovanloo, (ECE), Jud Ready (MSE), Pamela Bhatti (ECE), Panagiotis Tsiotras (AE), Fumin Zhang (ECE), Devesh Ranjan (ME)*

**Best Master's Thesis:** (with a plaque, certificate, and \$500 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
Sean Rodrigues	Electrical & Computer Engineering	Wenshan Cai
David Reilly	Mechanical Engineering	Devesh Ranjan

*Committee: Al Adibi, Chair (ECE), Nga Lee Ng (ChBE), Peter Hesketh (ME)*

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$200 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
April Gadsby	Civil & Environmental Engineering	Yichang (James) Tsai

*Committee: Satish Kumar, Chair (ME), Seung Woo Lee (ME)*

# 2015 SIGMA XI RESEARCH AWARD WINNERS

## Georgia Institute of Technology Chapter

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### FACULTY AWARDS

**Sustained Research:** (with a plaque, certificate, and \$5,000)

- Mark Borodovsky, Regents' Professor (Biomedical Engineering)

**Committee:** *Peter J. Hesketh (ME), Paul A. Kohl (ChBE), Chien-Fu Jeff Wu (ISYE)*

**Best Faculty Paper:** (with a plaque, certificate, and \$2,500 each)

- Francesca Storici, Associate Professor (Biology)
- Sankar Nair, Professor (Chemical and Biomolecular Engineering)
- Christopher W. Jones, New Vision Professor (Chemical and Biomolecular Engineering)

**Committee:** *Kim Cobb (EAS), David Hu (ME), Hang Lu (ChBE)*

**Young Faculty Award:** (with a plaque, certificate, and \$2,500 each)

- Eric Gilbert, Assistant Professor (Interactive Computing)
- James Wray, Assistant Professor (Earth and Atmospheric Sciences)

**Committee:** *Alberto Apostolico (CS), Michael A. Filler (ChBE), Kostas Konstantinidis (CEE), and Carol Paty (EAS)*

### STUDENT AWARDS

**Best PhD. Thesis:** (with a plaque, certificate, and \$1,000 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
Mel Ahmad Beirami	Electrical & Computer Engineering	Faramarz Fekri
Nuno Filipe	Aerospace Engineering	Panagiotis Tsiotras
Vince Fiore	Biomedical Engineering	Thomas Barker
Man Prakash Gupta	Mechanical Engineering	Satish Kumar
Melissa Kinney	Biomedical Engineering	Todd C. McDevitt
Kungang Li	Civil & Environmental Engineering	Yongsheng Chen
Kathryn H. Matlack	Mechanical Engineering	Laurence Jacobs
		Jianmin Qu
Vrishank Raghav	Aerospace Engineering	Narayanan M. Komerath
Peizhe Sun	Civil & Environmental Engineering	Ching Hua Huang
		Spyros G. Pavlostathis
Zhixuan Xia	Electrical & Computer Engineering	Ali Adibi

**Committee:** *Ali Adibi, Chair (ECE), Maysam Ghoovanloo (ECE), Shreyes Melkote (ME), Michael Leamy (ME), Jud Ready (MSE), Santosh Vempala (CS), Sankar Nair (ChBE), Alper Erturk (ME), and Omer Inan (ECE).*

**Best Master's Thesis:** (with a plaque, certificate, and \$500)

<u>Name</u>	<u>School</u>	<u>Advisor</u>
David Young	Civil and Environmental Engineering	Donald Webster

**Committee:** *Antonia Antoniou (ME)*

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$200)

<u>Name</u>	<u>School</u>	<u>Advisor</u>
Svetoslav Nikolov	Mechanical Engineering	Alexander Alexeev

**Committee:** *Larry Bottomley (Chem), Aldo Ferri (ME), Lakshmi Sankar (AE)*

# 2014 SIGMA XI RESEARCH AWARD WINNERS

## Georgia Institute of Technology Chapter

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### FACULTY AWARDS

**Sustained Research:** (with a plaque, certificate, and \$3,000)

- Professor Chien-Fu Jeff Wu, Professor (Industrial and Systems Engineering)

*Committee: Paul Kohl, Chair (ChBE), Phillip First (Physics), Meilin Liu (MSE), and Ellen Zegura (CC)*

**Best Faculty Paper:** (with a plaque, certificate, and \$1,500 each)

\*\* The Committee decided to not recommend awards in this category \*\*

*Committee: George A. Kardomateas, Chair (AE), Stavros Garoufalidis (MATH), and Wassim M. Haddad (AE)*

**Young Faculty Award:** (with a plaque, certificate, and \$1,500 each)

- Christopher Rozell, Assistant Professor (Electrical and Computer Engineering)
- Satish Kumar, Assistant Professor (Mechanical Engineering)

*Committee: Massimo Ruzzene, Chair (AE), Howard Weiss (MATH), Jianjun Shi (ISYE), and Russell Gentry (COA)*

### STUDENT AWARDS

**Best PhD. Thesis:** (with a plaque, certificate, and \$1,000 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
W. Christopher Edens	Biomedical Engineering	Mark Prausnitz
Arnold Lining Ju	Biomedical Engineering	Cheng Zhu
Mehdi Kiani	Electrical & Computer Engineering	Maysam Ghovanloo
Qing Li	Electrical & Computer Engineering	Ali Adibi
Lei Ma	Mechanical Engineering	Shreyes N. Melkote
Hamidreza Marvi	Mechanical Engineering	David Hu
Kevin Manktelow	Mechanical Engineering	Michael J. Leamy
Seungdae Oh	Civil & Environmental Engineering	Kostas Konstantinidis
Graham Sanborn	Materials Science & Engineering	W. Jud Ready
		CP Wong
Wencen Wu	Electrical & Computer Engineering	Fumin Zhang

*Committee: Suresh Sitaraman, Chair (ME), Levent Degertekin (ME), Andrew Peterson (ECE), Elsa Reichmanis (ChBE), Krishnendu Roy (BME), and Craig Tovey (ISYE)*

**Best Master's Thesis:** (with a plaque, certificate, and \$500 each)

\*\* The Committee decided to not recommend awards in this category \*\*

*Committee: Samuel Graham, Chair (ME)*

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$200 each)

<u>Name</u>	<u>School</u>	<u>Advisor(s)</u>
Quang Minh Kieu	Chem & Biomolecular Engineering	Michelle Dawson
Zhiyuan (Jerry) Lin	College of Computing	Duen Horng Chau

*Committee: Samuel Graham, Chair (ME)*

**Georgia Institute of Technology**  
**Chapter of Sigma Xi**  
**2013 Sigma Xi Research Award Winners**

**FACULTY AWARDS**

**Sustained Research:** (with a plaque, certificate, and \$3000)

- Paul A. Kohl, Regents Professor (Chemical & Biomolecular Engineering)

*Committee: Arun Gokhale, (MSE), Richard Neu (ME), Thomas Fuller (ChBE), Kimberly Kurtis(CEE)*

**Best Faculty Paper:** (with a plaque, certificate, and \$1500.00 each)

- David Hu, Assistant Professor (Mechanical Engineering)

&

- Kim M. Cobb, Associate Professor (Earth & Atmospheric Sciences)

*Committee: Robert Guldberg(ME), Jeffrey Strelman(Biology), Christine Heitsch(Mathematics), Hang Lu(ChBE)*

**Young Faculty Award:** (with a plaque, certificate, and \$1500.00 each)

- Michael A. Filler, Assistant Professor (Chemical & Biomolecular Engineering)

&

- Stefan A. France, Assistant Professor(Chemistry & Biochemistry)

*Committee: Kostas Konstantinidis (CEE), Peter Hesketh (ME), Julia Kubanek (Biology), Athanasios Nenes(EAS)*

**STUDENT AWARDS**

**Best PhD. Thesis:** (with a plaque, certificate, and \$1000.00 each)

- Suk Choi , Electrical & Computer Engineering - (Advisor: Russell D. Dupuis)
- Karthekeyan Chandrasekaran, Computer Science- (Advisor: Santosh S. Vempala)
- Yaroslav O. Dudin, Physics - (Advisor: Alex Kuzmich)
- Douglas B. Rasher, Biology- (Advisor: Mark E. Hay)
- Chengwei (Alex) Luo, Biology - (Advisor: Kostas Konstantinidis)
- Maysamreza Chamanzar, ECE – (Advisor: Ali Adibi)
- Gregory T. Ostrowicki, ME – (Advisor: Suresh K. Sitaraman)
- Ryder C. Winck, ME – (Advisor: Wayne J. Book)

*Committee: Olivier Pierron (ME) Michelle R Dawson (ChBE), Peter Loutzenhiser (ME), David Ballantyne(Physics), Ali Adibi (ECE)*

**Best Master's Thesis:** (with a plaque, certificate, and \$500.00 each)

- Shweta Natarajan, Mechanical Engineering – (Advisor: Samuel Graham)
- Sihong Zhao, Mechanical Engineering – (Advisor: Alper Erturk )

*Committee: Antonia Antoniou, (ME), Hang Lu (ChBE), Chloe F. Arson(CEE)*

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$200.00 each)

- Ross Granowski, Mathematics – (Advisor: Wilfrid Gangbo)

*Committee: Joseph Saleh (AE)*

**Georgia Institute of Technology**  
**Chapter of Sigma Xi**  
**2012 Sigma Xi Award Winners**

**FACULTY AWARDS**

**Sustained Research:** (with a plaque, certificate, and \$2,000)

- Barbara D. Boyan, Professor (Biomedical Engineering)

*Committee: Dewey Hodges, AE, Charles Ume (ME), Al Merrill (Biology), Suresh Sitaraman (ME)*

**Best Faculty Paper:** (with a plaque, certificate, and \$1,200 each)

- Robert E. Guldberg, Professor (Mechanical Engineering)

&

- Hang Lu, Associate Professor (Chemical & Biomolecular Engineering)

*Committee: Cheng Zhu (Biomedical Eng.), Mark Prausnitz (Chemical & Biomolecular Eng.)*

**Young Faculty Award:** (with a plaque, certificate, and \$1,200 each)

- Raquel L. Lieberman, Assistant Professor (Chemistry & Biochemistry)

&

- Konstantinos T. Konstantinidis, Assistant Professor (Civil & Environmental Engineering)

*Committee: Larry Bottomley (Chemistry Eng), Peter Hesketh (ME)*

**STUDENT AWARDS**

**Best Ph.D. Thesis:** (with a plaque, certificate, and \$500.00 each)

- Amir Hossein Atabaki, Electrical & Computer Eng- (Advisor: Ali Adibi)
- Fernie Goh, Chemical & Biomolecular Eng. - (Advisor: Athanassios Sambanis)
- Chen Li, Physics - (Advisor: Daniel I. Goldman)
- Jeffrey N. Stirman, Chemical & Biomolecular Eng. - (Advisor: Hang Lu)
- Chun-Wan Yen, Chemistry & Biochemistry - (Advisor: Mostafa A. El-Sayed)

*Committee: Greg Turk (CC), Daniel Goldman(Physics), Z. L. Wang(MSE), Athanasios Nenes (Chemical&Biomolecular ), Ajit Yoganathan( BME)*

**Best Master's Thesis:** (with a plaque, certificate, and \$250.00 each)

- Yuan Li, Mechanical Engineering – (Advisor: Antonia Antoniou)
- Danny Duong, Electrical & Computer Engineering – (Advisor: Paul G. Steffes)

*Committee: Olivier Pierron, (ME), Wendy L. Kelly(Chemistry Eng)*

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$100.00 each)

- Rachel Haga, Aerospace Engineering – (Advisor: Joseph H. Saleh)
- Nader Aboujamous, Biomedical Engineering – (Advisor: Thomas H. Barker)

*Committee: David G. Taylor(ECE), Panagiotis Tsiotras (AE)*

**Georgia Institute of Technology**  
**Chapter of Sigma Xi**  
**2011 Sigma Xi Award Winners**

**FACULTY AWARDS**

**Sustained Research:** (with a plaque, certificate, and \$2,000)

- Dewey H. Hodges, Professor (Aerospace Engineering)

***Committee Chair: Kurt A. Wiesenfeld, Physics***

**Best Faculty Paper:** (with a plaque, certificate, and \$1,200 each)

- Cheng Zhu, Professor (Biomedical Engineering)

&

- Mark R. Prausnitz, Professor (Chemical & Biomolecular Engineering)

***Committee Chair: Julia M. Kubanek, Biology***

**Young Faculty Award:** (with a plaque, certificate, and \$1,200 each)

- Hyesoon Kim, Assistant Professor (Computer Science)

&

- Cheng-Yun Karen Liu, Assistant Professor (Interactive Computing)

***Committee Chair: Daniel Goldman, Physics***

**STUDENT AWARDS**

**Best PhD. Thesis:** (with a plaque, certificate, and \$500.00 each)

- Christopher J. Wojtan, Interactive Computing - (Advisor: Gregory Turk)
- Diane de Juliene Zelicourt, Biomedical Eng. - (Advisor: Ajit P. Yogarathan)
- Donifan Barahona, Chemical & Biomolecular - (Advisor: Athansious Nenes)
- Sheng Xu, Materials Science & Eng. - (Advisor: Zhong Lin Wang)
- Ryan D. Maladen, Biomedical Engineering - (Advisor: & Daniel I. Goldman)

***Committee Chair: Zhuomin Zhang, Mechanical Engineering***

**Best Master's Thesis:** (with a plaque, certificate, and \$250.00 each)

- Bhaskar Pant, Mechanical Engineering – (Advisor: Olivier Pierron)
- Lisa Tsai-I Bain, Chemistry & Biochemistry – (Advisor: Wendy L. Kelly)

***Committee Chair: Peter Webster, Earth & Atmospheric Sciences***

**Best Undergraduate Thesis:** (with a plaque, certificate, and \$100.00 each)

- Ashish S. Katariya, Electrical & Computer Eng. – (Advisor: David G. Taylor)
- Luis Ignacio Reyes Castro, Aerospace Engineering – (Advisor: Panagiotis Tsiotras)
- ***Committee Chair: Richard Catrambone, Psychology***



Georgia Institute of Technology  
Chapter of Sigma Xi

## 2010 Sigma Xi Research Award Winners

### FACULTY AWARDS

Sustained Research Award (with a plaque and \$2,000)

- ☐ Kurt A. Wiesenfeld, Professor, Physics

Committee Chair: Al Merrill, Biology

Faculty Best Paper Awards (with a plaque and \$1200 each paper)

- ☐ Jonathon T. Giffin, Assistant Professor, Computer Science &
- ☐ Wenke Lee, Professor, Computer Science
- &
- ☐ Julia M. Kubanek, Associate Professor, Biology,
- ☐ Mark Hay, Professor, Biology, &
- ☐ Facundo Fernandez, Associate Professor, Chemistry & Biochemistry

Committee Chair: Ellery Ingall, EAS

Young Faculty Awards (with a plaque and \$1200 each)

- ☐ Nicholas G. Fearmster, Assistant Professor, Computer Science
- ☐ Daniel I. Goldman, Assistant Professor, Physics

Committee Chair: Hang Lu, EAS

### STUDENT AWARDS

Best Ph.D. Thesis Awards (with a plaque and \$500 each)

- ☐ Soumyadipta Basu – Mechanical Engineering (Advisor: Zhuomin Zhang)
- ☐ Alex Grigo – Mathematics (Advisor: Leonid Bunimovich)
- ☐ Seda Keskin – Chemical & Biomolecular Engineering (Advisor: David S. Sholl)
- ☐ Suchitra Konduri – Chemical & Biomolecular Engineering (Advisor: Sankar Nair)
- ☐ Christopher I. Richards – Chemistry & Biochemistry (Advisor: Robert M. Dickson)

Committee Chair: Loren Williams, Chemistry & Biochemistry

Best M.S. Thesis Awards (with a plaque and \$250 each)

- ☐ Manuel D. Zuluaga – Earth & Atmospheric Sciences (Advisor: Peter J. Webster)
- ☐ Trevor J. Bright – Mechanical Engineering (Advisor: Zhuomin Zhang)

Committee Chair: Michael Meyer, CEE

Best Undergraduate Research Award (with a plaque and \$100 each)

- ☐ Courtney Coons – Psychology (Advisor: Richard Catrambone)

Committee Chair: Naresh Thadhani, MSE

**Georgia Institute of Technology  
Chapter of Sigma Xi**

To: School, Laboratory and Center Directors  
From: Richard W. Neu., President - Georgia Tech Chapter  
Subject: 2009 Sigma Xi Research Awards  
Copy: Vice-Presidents, Deans, Interim President Schuster

**FACULTY AWARDS**

**Sustained Research Award** (with a plaque and \$2,000)

- Alfred H. Merrill, Jr., Professor, School of Biology

*Committee Members: Suresh Sitaraman (ME) - Chair, Paul Kohl (ChBE), Seymour Goodman (Ivan Allen College - International Affairs and Computing), Z.L. Wang (MSE), and Wayne Wolf (ECE)*

**Faculty Best Paper Awards** (with a plaque and \$1,200 each)

- Ellery Ingall, Associate Professor, School of Earth & Atmospheric Science
- Zhong Lin Wang, Regents Professor, School of Materials Science & Engineering

*Committee Members: Cheng Zhu (ME) - Chair, Valeria Tolver Milam (MSE), and Donald Doyle (Chemistry)*

**Young Faculty Awards** (with a plaque and \$1,200 each)

- Emanuele Di Lorenzo, Assistant Professor, School of Earth & Atmospheric Sciences
- Hang Lu, Assistant Professor, School of Chemical & Biomolecular Engineering.

*Committee Members: Sankar Nair (ChBE) - Chair, Ellery Ingall (EAS), Julia Babensee (BME), and Peter Hesketh (ME)*

**STUDENT AWARDS**

**Best Ph.D. Thesis Awards** (with a plaque and \$500 each)

- Gregory M. Rutter – *Physics* (Advisor: Professor Phillip N. First)
- Adam W. Marcus – *Math* (Advisor: Professor Prasad Tetali)
- Brandon K. Fornwalt – *BME* (Advisor: Professor John N. Oshinski)
- Chiaolong Hsiao – *Chemistry* (Advisor: Professor Loren D. Williams)
- Lakshmi N.B. Chakrapani – *Computer Science* (Advisor: Professor Krishna V. Palem)

*Committee Members: Andrew Lyon (Chemistry) - Chair, Todd McDevitt (BME), Haskell Beckham (PTFE/CHEM), Peter Ludovice (ChBE)*

**Best M.S. Thesis Award** (with a plaque and \$250 each)

- Michael Budnitzki – *ME* (Advisor: Olivier N. Pierron)
- Nicholas Schmidt – *CEE* (Advisor: Michael Meyer)

*Committee Members: David N. Ku (ME) - Chair, Evan Zamir (ME), and Kyriaki Kalaitzidou (ME)*

**Best Undergraduate Research Award** (with a plaque and \$100 each)

- Adam E. Jakus – *MSE* (Advisor: Naresh Thadhani)
- Megan L. Elmore – *Computer Science* (Advisor: Nicholas Feamster)

*Committee Members: James L. Gole (Physics) - Chair, Karen Harwell (Vice Provost Academic Affairs), Peter Hesketh (ME)*

**Georgia Institute of Technology  
Chapter of Sigma Xi**

To: School, Laboratory and Center Directors  
From: Meilin Liu, President - Georgia Tech Chapter  
Subject: 2008 Sigma Xi Research Awards  
Copy: Vice-Presidents, Deans, President Clough

**Faculty Awards**

- **Sigma Xi Sustained Research Award** – awarded at \$2,000, to be shared by

Dr. Walter de Heer (\$1,000), Professor, School of Physics  
Dr. Suresh Sitaraman (\$1,000), Professor, School of Mechanical Engineering

Committee members: Charles Ume (ME), Michael Chapman (Physics), Wilfrid Gangbo (Math), Naresh Thadhani (MSE)

- **Sigma Xi Faculty Best Paper Awards** – awarded at \$1,200 each

Professor Zhonglin Wang (\$600) and Dr. Xudong Wang (\$600)  
School of Materials Science and Engineering

Professor Cheng Zhu (\$600) and Dr. Veronika Zarnitsyna (\$600)  
The Wallace Coulter Department of Biomedical Engineering and School of Mechanical Engineering

Committee Members: A. Nenes, Chair (EAS & ChBE), M. Bergin (CE & EAS), B. Mizaikoff (Chemistry)

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**Sigma Xi Young Faculty Award** – awarded at \$1,200 each

Dr. Nico F. Declercq (\$1,200), Assistant Professor, School of Mechanical Engineering

Dr. Sankar Nair (\$1,200), Assistant Professor, School of Chemical & Biomolecular Engineering

Committee members: Dr. Soojin Yi (Chair, Biology), Jean Lynch-Stieglitz (EAS), Andreas Bommarius (ChBE), Spyros Pavlostathis (CEE)

**Student Awards**

**PhD Thesis (\$500 each)**

- Harvinder Gill - ChBE, Advisor: Prof. Mark Prausnitz
- Jongseong Kim - Chem, Advisor: Prof. Andrew Lyon
- Mark Tschopp – MSE, Advisor: Prof. David McDowell
- Bong Jae Lee - ME, Advisor: Prof. Zhuomin Zhang
- Tirthankar Dasgupta - ISYE, Prof. Advisor: Jeff Wu

Committee Members: Raghupathy Sivakumar, ECE (Chair), Peter Hesketh, ME  
Brian Kennedy, Phys; Victor Breedveld, ChBE; David Bucknall, PTFE

**MS Thesis (\$250 each)**

Laura-Lee Farrell, School of Mechanical Engineering, Advisor: Prof. David N. Ku

Committee members: Kurt D. Pennell, CEE; Mark Prausnitz, ChBE; Larry Bottomley, Chem,

Andrei Fedorov, ME

**Undergraduate Research (\$100 each)**

Laura Croft, School of Biomedical Engineering, Advisor: Prof. Ajit P. Yoganathan  
Jenna Campbell, School of Physics, Advisor: Prof. Judy Melton

Committee members: Matt Baker, Math; Ahmet Erbil, Physics; Valeria Tohver Milam, MSE

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**Georgia Institute of Technology  
Chapter of Sigma Xi**

To: School, Laboratory and Center Directors  
From: Meilin Liu., President - Georgia Tech Chapter  
Subject: 2007 Sigma Xi Research Awards  
Copy: Vice-Presidents, Deans, President Clough

**FACULTY AWARDS**

**Sustained Research Award** (with a certificate and \$2,000)

- **Charles Ume**, Professor, School of Mechanical Engineering

**Best Paper Awards** (with a certificate and \$1,200)

- **Larry Jacobs**, Professor, School of Civil and Environmental Engineering, **Jianmin Qu**, Professor, School of Mechanical Engineering, and **Jin-Yeon Kim**, School of Civil and Environmental Engineering
- **Kirill Lobachev**, Assistant Professor, School of Biology

**Young Faculty Awards** (with a certificate and \$1,200)

- **Athanasios Nenes**, Assistant Professor, School of Chemical & Biomolecular Engineering and School of Earth & Atmospheric Sciences
- **Soojin Yi**, Assistant Professor, School of Biology

**STUDENT AWARDS**

**Best Ph.D. Thesis Awards** (with a certificate and \$500) - *Committee Chair: Prof. Marcus Weck (Chemistry)*

- **Swapan Jain**, Chem (Advisor: Professor Nicholas Hud)
- **Rajesh Luharuka**, ME (Advisor: Professor Peter J. Hesketh)
- **Stewart Jenkins/Dzmitry Matsukevich** (Physics, Advisors: Professors Brian Kennedy and Alex Kuzmich)
- **Jun Sato**, ChBE (Advisor: Professor Victor Breedveld)
- **Karthikeyan Sundaresan**, ECE (Advisor: Professor Raghupathy Sivakumar)

The committee: Marcus Weck (Chemistry); Martina Gallivan (CEE); Samuel Graham (ME); Todd Streebman (Biology)

**Best M.S. Thesis Award** (with a certificate and \$250)

- **Christian Bernes**, School of Civil and Environmental Engineering, Advisor: Professor Laurence Jacobs (CEE) and Professor Jianmin Qu (ME)
- **Mariefel Valenzuela**, School of Chemical & Biomolecular Engineering, Advisor: Professor Chris Jones

**Best Undergraduate Research Award** (with a certificate and \$100)

- Mr. Ander Steele for his paper entitled "Carmichael Numbers in Extension Fields of  $\mathbb{Q}$ " School of Mathematics, Advisor: Professor Matthew Baker
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**Georgia Institute of Technology  
Chapter of Sigma Xi**

To: School, Laboratory and Center Directors  
From: Jianmin Qu., President - Georgia Tech Chapter  
Subject: 2006 Sigma Xi Research Awards  
Copy: Vice-Presidents, Deans, President Clough

**FACULTY AWARDS**

**Sustained Research Award** (with a certificate and \$2,000)

- Mark Hay, School of Biology

**Best Paper Awards** (with a certificate and \$1,200)

- Webster, P.J., G.J. Holland, J.A. Curry, and H.-R. Chang, School of Earth and Atmospheric Sciences
- N. Cho, Z. Bao, and R.F. Speyer, School of Materials Science and Engineering

**Young Faculty Awards** (with a certificate and \$1,200)

- Marcus Weck, School of Chemistry and Biochemistry
- Xiaoming Huo, School of Industrial and Systems Engineering

**STUDENT AWARDS**

**Best Ph.D. Thesis Awards** (with a certificate and \$500)

- Jed Costanza, School of Civil and Environmental Engineering, Advisor: Professor Kurt Pennell
- Akio Kita, School of Mechanical Engineering, Advisor: Professor Charles Ume
- Wuqin Lin, School of Industrial and Systems Engineering, Advisor: Professor Jim Dai
- Wijaya Martanto, School of Chemical and Biomolecular Engineering, Advisor: Professor Mark Prausnitz
- Abubakr Muhammad, School of Electrical and Computer Engineering, Advisor: Professor Magnus Egerstedt

**Best M.S. Thesis Award** (with a certificate and \$250)

- Robert J. Baxley, School of Electrical and Computer Engineering, Advisor: Professor G. Tong Zhou
- David C. Beaulieu, School of Mechanical Engineering, Advisor: Professor Jack Lackey

**Best Undergraduate Research Award** (with a certificate and \$100)

- Ioana Soran, School of Mathematics, Advisor: Professor Doron Lubinsky
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- Sidhartha Gupta, School of Materials Science and Engineering, Advisor: Professor Rasario Gerhardt

## **Georgia Institute of Technology Chapter of Sigma Xi**

To: School, Laboratory and Center Directors  
From: Jianmin Qu., President - Georgia Tech Chapter  
Subject: 2005 Sigma Xi Research Awards  
Copy: Vice-Presidents, Deans, President Clough

### **FACULTY AWARDS**

**Sustained Research Award** – *Committee Chair: Professor Chris Summers (MSE)*  
Z. L. Wang (MSE)

**Best Paper Award** - *Committee Chair: Professor Cheng Zhu (ME)*  
Gang Bao (BME)  
Joseph P. Montoya (Biology)

**Young Faculty Award** - *Committee Chair: Professor Andrei Federov (ME)*  
F. Levent Degertekin (ME)  
Chris W. Jones (ChBE)

### **STUDENT AWARDS**

**Best Ph.D. Thesis Award** - *Committee Chair: Professor David Collar (ChBE)*  
Liang Ge, CEE (Advisor: Professor Fotis Sotiropoulos)  
Andrew McFarland, ME (Advisor: Professor Jonathan Colton)  
Satish Nayak, CHEM (Advisor: Professor L. Andrew Lyon)  
Raviv Raich, ECE (Advisor: Professor G. Tong Zhou)  
Carolyn Seepersad, ME (Advisors: Professors Janet K. Allen, David L. McDowell and Farrokh Mistree)

**Best M.S. Thesis Award** - *Committee Chair: Professor Rina Tannenbaum (MSE)*  
Siavash Pourkamali, ECE (Advisor: Farrokh Ayazi)  
Ameya Shankar Limaye, ME (Advisor: David Rosen)

**Best Undergraduate Research Award** - *Committee Chair: Professor P.K. Yeung (AE)*  
Robert Samuel Hurt, CEE (Advisor: Professor Leonid N. Germanovich)  
Steven Linsel, Math (Advisors: Professors Leonid A. Bunimovich and Mason Porter)

*Student and Faculty awards will be presented at the annual Sigma Xi banquet to be held in the First Place at the Student Center on Wednesday, April 6, 6-9 p.m. The Faculty awards will also be recognized at the Faculty/Staff awards luncheon held on April 13.*

## **Winners of the 2004 Sigma Xi Awards**

### **Sustained Research Award**

Professor Chris Summers(MSE)

**Committee Chair: Prof Mo Li(MSE)**

### **Young Faculty Awards:**

Prof. Tim Lieuwen(AE)

Prof. Andrei Fedorov(ME)

**Committee Chair: Prof. Rick Neu(ME)**

### **Best Faculty Papers Awards:**

First place: Professor Cheng Zhu(BME/ME)

Second Place: Professor Min Zhou(ME)

**Committee Chair: Prof. John Zhang(Chemistry and Bio-chemistry)**

### **Best PhD Thesis awards:**

1. Zhuqing Zhang (MSE)- Professor C.P. Wong
2. Christy F. Landes(Chemistry/Biochemistry), Professor D. Collard
3. Kasso Okoudjou(Math) - Professor Chris Heil
4. Aleksandar Pregelj(ECE) - Professor Russell Mersereau
5. Qi Angela Zhu(ME) - Professor Suresh Sitaraman

**Committee Chair, Prof. Meilin Liu(MSE)**

### **Best MS Thesis awards:**

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George (Wren) Greene(MSE), (advisor: Rina Tannenbaum)  
Karthikeyan Sundaesan.(ECE) (advisor: Raghupathy Sivakumar)

**Committee Chair: Prof. Min Zhou (ME)**

**Best Undergraduate research Awards:**

Jia Xu(AE) advisor: ( Dr. P. K. Yeung)  
Erin Beaty(MSE) advisor : (Dr C. P. Wong)

**Committee Chair: Prof. Naresh Thadhani(MSE)**

Student and Faculty awards will be presented at the annual Sigma Xi banquet to be held in the Ferst Place at the Student Center on Monday, April 5, 6-8 p.m. The Faculty awards will also be recognized at the Faculty Staff awards luncheon held on April 7.

**2003 Sigma Xi Awards**

**Sustained Research Award**

Professor Meilin Liu(MSE)

*Committee Chair:* Prof.Arun Gokhale(MSE)

**Young Faculty Awards**

Prof. Dan Lizarralde(EAS)

Prof. Boris Mizaikoff (Chemistry and Biochemistry)

*Committee Chair:* Prof. Meilin Liu(MSE)

**Best Faculty Papers Awards**

First place: Professor Nicholas Hud.(Biology)

Second Place: Professor Z. L. Wang(MSE)

*Committee Chair:* Prof. Jim Dai (ISYE)

**Best Ph.D. Thesis Awards**

Bryan Marshall (ME, Advisor: Dr. Cheng Zhu)

Kun-Lin Yang (Civil and Environ. Engineering, Advisor: Dr. Sotira Yiacoymi)

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Wenbin Yu (AE, Advisor: Dr. Dewey Hodges)

Charles Ramsburg (Civil and Environ. Eng., Advisor: Dr. Kurt Pennell)

Jean-Philippe Richard (ISYE, Advisor: George Nemhauser)

*Committee Chair:* Prof. Yang Wang(Math)

### **Best M.S. Thesis Awards**

Clinter Chedester—School of Mechanical Engineering, Advisor: S. Mostafa Ghiaasiaan (ME)

Jens Becker—School of Civil & Environmental Engineering, Advisors: Laurence Jacobs (CEE)  
& Jianmin Qu (ME)

*Committee Chair:* Prof. Jeffrey Streator (ME)

### **Best Undergraduate Research Awards**

Gwendolyn Bristol, School of Earth and Atmospheric Sciences, Advisor: Dr. Martial Taillefert

Christopher K. Tison, School of Materials Science and Engineering, Advisor : Dr C. P. Wong

*Committee Chair:* Prof. Ray Vito(ME)

## **Georgia Institute of Technology Chapter of Sigma Xi**

To: School, Laboratory and Center Directors  
From: Zhong Lin (ZL) Wang (Professor, MSE), President - Georgia Tech Chapter  
Subject: 2001 Sigma Xi Research Awards  
Copy: Vice-Presidents, Deans, President Clough

### ***FACULTY AWARDS***

#### **Outstanding Young Faculty Award**

Professor Amy Bruckman (College of Computing)

Professor James Gaherty (School of Earth and Atmospheric Sciences)

*Committee:* Prof. Cheng Zhu (Mechanical Engineering, Committee Chair), Prof. Lawrence Bottomley (Chemistry and Biochemistry), Prof. Mark Prausnitz (Chemical Engineering), and

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## **Sigma Xi Sustained Research Award**

Professor Douglas Davis (School of Earth and Atmospheric Sciences)

*Committee:* Prof. Chris J. Summers (School of MSE, Chair), Prof. William Hunt (School of ECE) Professor Andrew Zangwill (School of Physics), and Dr. Brent Wagner (GTRD).

### Best Paper Award

Professor Robert P. Lowell (EAS) and Professor Leonid Germanovich (CEE).  
*"Temperature-dependent permeability and bifurcations in hydrothermal flow"*

Professor Yury O. Chernoff (School of Biology) *"Yeast prion protein derivative defective in aggregate shearing and production of new 'seeds'"*

*Committee Chair:* Jack Lackey (ME).

## **STUDENT AWARDS**

### Ph.D. Thesis

Dr. C. Chin [CEE] [Advisor: Prof. S. Yiacoumi] "Aggregation of Colloidal Particles and Breakup of Aggregates: Probing Interparticle Forces"

Dr. C. Duty [ME] [Advisor: Prof. J. Lackey, advisor] "Design, Operation, and Heat and Mass Transfer Analysis of a Gas-Jet Laser Chemical Vapor Deposition System"

Dr. M. Milisavljevic [ECE] [Advisor: Prof. E. Verriest, advisor] "Information Driven Optimization Methods in Control Systems, Signal Processing, Telecommunications, and Stochastic Finance"

Dr. A. Rondinone [Chemistry] [Advisor: Prof. Z. Zhang, advisor] "Superparamagnetic Relaxation Dynamics of Magnetic Spinel Ferrite Nanoparticles"

Dr. R. Tallam [ECE] [Advisor: Prof. T. Habetler, advisor] "Current-Based Sensorless Detection of Stator Winding Turn-Faults in Induction Machines"

*Committee Chair:* Prof. Robert Ghrist (Math). *Committee Members:* Prof. Imme Ebert-Uphoff (ME) and Prof. Greg Turk (College of Computing)

### M.S. Thesis

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Zhuqing Zhang (MSE) (Advisor: Prof. C.P. Wong, MSE) "No-Flow Underfill Materials for Environment Sensitive Flip-Chip Process"

Jochen M. Rieber (CEE) (Advisor: Prof. D. G. Taylor, ECE) "L2-Gain Based Control of a Flexible Parameter-Varying Robot Link"

*Committee Chair:* Prof. Meilin Liu (MSE). *Members:* Prof. Andrei Fedorov (ME), Prof. Ching-Hua Huang (CEE), Prof. Andrew Lyon (Chem), Prof. John A. Pelesko (Math)

### Undergraduate Research

Mr. Patrick Fulton, School of Earth and Atmospheric Science, "*NSF-sponsored Georgia Coastal Ecosystems-Long term Ecological Research*". Advisor: Prof. Carolyn Ruppel.

Ms. Amy Vinson, School of Chemistry and Biochemistry, "*Laser fluorescence microscopy*". Advisor: Prof. Robert Dickson.

Ms. Amanda Jacob, School of Chemistry Engineering, "*formation, characterization and reaction of silica and tin oxide nanostructures*". Advisors: Prof. Mark White and Prof. James Gole.

*Committee Chair:* Prof. James Gole (Physics).

Student and Faculty awards will be presented at the annual Sigma Xi banquet to be held in the First Place at the Student Center on Wednesday, April 17, 6-8 p.m. The Faculty awards will also be recognized at the Faculty/Staff awards luncheon held on April 10.