

University of Massachusetts Lowell
Physics Department Alumni Advisory
Board
Board Activities 2016-2017

The Board continues to work with the department in the areas of physics education and development as defined in our goal and organization document as well as give the department advice on what skills the alumni have found important to incorporate in their personal skill set in order to advance their professional careers.

During the Fall 2016/Spring 2017 Academic Year the Committee has accomplished the following:

In our Fall 2016 meeting we were briefed on the outstanding research of 3 of the newer faculty members. The speakers were **Prof. Nishant Agarwal “Understanding the Evolution of Our Universe,” Prof. Ofer Cohen “Computer Simulations of Cosmic Plasmas,”** and **Prof. Archana Kamal “Quantum Information Processing.”** In the spring instead of a formal meeting we ran an alumni/student get together. Twelve alumni and about 25 physics students got together to chat about the alums’ job experiences, job expectations, and a number of very interesting work stories. The night worked out so well we are planning to do it again, perhaps next year. During the annual SPS banquet we honored Alumnus Dr. Carmina Londono with the 2017 Alumnus of the Year Award for her work in optics, her leadership in the Global Standard and Information Systems Group at NIST, and her work as the NSF program director in the Americas cluster.

The meeting minutes for the November 8, 2016 meeting and March 29, 2017 meeting announcement are given in Appendix I. The board has been very active in the quest to define itself and provide vehicles to work with the Physics Department and the department’s students.

Appendix I

Advisory Board Meeting Minutes, November 8, 2016

I. Call to order

[Facilitator Name] called to order the executive meeting of the Physics Alumni Advisory Board at 7:05 pm EST on Tuesday, November 8, 2016 (Election Day) in the Olney Physics Conference Room (OH136) on the North Campus of the University of Massachusetts Lowell.

II. Roll call

Alumni in attendance (according to the sign-in sheet):

- Gene Vogt ('75) – efv@mitre.org
- William P. Toomey ('69) – Science@Toomey.net
- John Lipnicki ('69) – lipnicki@icloud.com
- John LeBlanc ('85) – jleblanc@draper.com
- John Tardelli ('64, '70) – jdtardelli@gmail.com
- Tim Largy ('95) – TIM@LARGY.COM
- Paul Alcorn ('06, '08) – paulalcorn@gmail.com
- Brian Krejca ('04) – bdkrejca@yahoo.com
- Jim Li ('06) – Jin_li267@hotmail.com
- Xifeng Qian ('09) – bjackqxf@yahoo.com

III. Meeting

Dr. Goodhue began the meeting by reemphasizing the positive impact the UML Physics Alumni Advisory Committee had on the success of the AQAD (Academic Quality Assessment and Development Committee) visit and evaluation last spring.

Chris Roberts spoke for a few minutes on computational magnetism.

Department Chair Dr. Robert Giles spoke a bit on the merging of science and technology and its impact on future graduates. He also spoke about the seventeen new faculty members brought on-board in the past 9 years (24 total), the eleven associated research centers, the \$9M in external grants, and the recent ranking of the department as #51 in the entire country. He described the potential for continued alumni involvement in areas such as the undergraduate and graduate seminars, the Lowell Regional Physics Association, the Wednesday colloquia, and finished with a reminder about the annual Society of Physics Students (SPS) and Graduate Physics Association banquet that will be held this academic year on the 3rd of May 2017.

Dr. Goodhue and Dr. Giles then both spoke about possible ways to enhance and expand the astronomy curriculum by organizing astronomy nights and other activities. An Alumni Astronomy Subcommittee was formed, initially consisting of Bill Toomey and Tim Largy.

IV. Presentations

The bulk of the meeting was focused on the presentations by three new members of the faculty;

- Prof. Nishant Agarwal
 - *Understanding the Evolution of Our Universe*
- Prof. Ofer Cohen
 - *Computer Simulations of Cosmic Plasmas*

- Prof. Archana Kamal
 - *The Age of Quantum Information*

V. Committee Discussions

The meeting concluded with further discussions about activities and efforts to enhance the astronomy program at the university. We were pointed to the UML Astronomy blog (<http://blogs.uml.edu/astronomy/>) for current information. There is a remotely-controlled 10-inch Schmidt-Cassegrain optical telescope on the roof of Olney Hall, and a second donated telescope and dome outside the city proper that will eventually need to be moved to university property (currently on privately-owned land) for liability reasons.

The value of alumni-student interaction was also discussed, with options for seminars for freshman and sophomores, and the possibility of a “speed-mentoring” night, modelled on the “speed-dating” concept, where students and alumni would meet in small groups around a table for 5-10 minutes, then switch to a different table... rinse, wash, repeat.

VI. New business

- a) No new business – date of next meeting not yet set.

VII. Adjournment

[Facilitator Name] adjourned the meeting at 8:45 pm EST.

Minutes submitted by: Gene Vogt

Advisory Board Meeting, March 29, 2017 Announcement

Note: minutes are unavailable. However the meeting was a tremendous success and played out as advertised in the announcement. Both Alumni and students had such a great time we had to stop after a significant run over the allotted time.

Joint Student Alumni Get Together

The Spring Alumni Physics Advisory Board Meeting

March 29, 2017, 6:00 PM, Physics Department

Under graduate and graduate physics students come join your fellow alumni to talk about careers, jobs, and anecdotal stories of how physics has advance alums in their careers. What is your passion? Where are the dream Jobs? What are employers looking for? What are your goals? Which courses are useful?

Assemble in Physics Office Area at 6:00 p.m.

- Meet and Greet,
- Pizza and Coffee Provided

Program Begins at Approximately 6:45 p.m.,

- **Introductions**
- **First 30 to 40 minutes 3 Break-out Sessions with Both Experienced and New Alumni**

- **Followed by a 30 minute General Discussion Session (All)**

Breakout A Alumni Leaders:

W Timothy Carey: BS Physics U Lowell, MS Engineering Northeastern; Tim has 39 years of experience in the Aerospace & Defense Industry with expertise in business management, manufacturing, design and development, and engineering management. From 2008 through 2012 he was Vice President Intelligence Surveillance & Reconnaissance at Raytheon Company where he was responsible for a \$2B business unit providing advanced sensor systems to USG, domestic and international customers.

John Le Blank: Draper Laboratories Researcher. John works numerous area including atomic clocks and magnetometers, optogenetics, and electric and magnetic field sensing.

Kevin Anglin: Ph. D. UML; Kevin studied Applied Physics at UMass Lowell from 2008-2014, receiving his PhD for his research on High Power Semiconductor Laser Devices for Beam Combining Applications. Since graduation he has worked as an R&D Process Engineer at Applied Materials in Gloucester, designing high volume Silicon manufacturing tools for next generation technology nodes.

Breakout B Alumni Leaders:

Gene Vogt: BS Applied Physics LTI; MS Education Northeastern; Gene currently provides scientific and technical guidance to a group of engineers working to facilitate foreign military sales for the U.S. government. Previously was in charge of implementing governance procedures for a SOA-based system of systems to improve understanding of the services and interfaces and their roles in the system of systems. Also spent many years working on intelligence systems challenges for the U.S. Government on three continents.

Lin Li : Ph. D. Physics UML; After she graduated from UMass Lowell, Jin has taken various roles and responsibilities including researching and developing high power semiconductor lasers, fiber optics for medical imaging; leading and managing a cross-functional team for new product/business development. She is currently a Sr. Product Manager of laser beam scanning products at Cambridge Technology.

Tim Largy: BS Physics UML; Tim works at Akamai Technologies doing software integration for a system that effectively speeds up a global, internet-protocol based network for our users. Tim has also been interested in software technology for its own sake, and has gravitated towards teams where the focus was on building or maintaining systems that run continuously and do something, usually not related to anything physical. He's worked at MIT Lincoln Laboratory, a start-up, Raytheon, and Akamai.

Breakout C Alumni Leaders:

William (Bill) Toomey: BS Physics Lowell Tech, MS Physics UMass Amherst; Physics & Mathematics Instructor Nashoba Valley Technical High School - Engineering Academy, Former Senior Engineer & Engineering Manager Digital Equipment Corp., Computer Special Systems, Former Principle Engineer EMC Corp.

Paul Alcorn: BS and MS Physics UML, Process Scientist at Raytheon; When Paul applied for jobs after college He was successful in obtaining a job right after I graduated. He was told that it was his hand on research experience at Lowell that set him apart from other college applicants and allowed him to obtain his dream job right out of school.

Bill Goodhue: Ph. D. Physics UML; Past experiences: high school teacher, Research Scientist United Technologies and MIT Lincoln Laboratory, Physics Professor UML – Currently part time research scientist Lincoln Laboratory