

Executive Committee Meeting Minutes
95th Semi-annual Symposium
136th Meeting of NYSS/APS
October 20, 2006
SUNY Potsdam
Raymond Hall

Time: 9:00 AM

Members present: Chair, James Owens (07); Vice Chair, Bob Pompei (07); Secretary-Treasurer, Larry Josbeno (09); Section Council Observer, Enrique Galvez(07); Section Councillor, Gianfranco Vidali (07); Executive Committee: Lawrence Brehm (07); Shu Chang (07); Scott Heinekamp (09); Roman Kezerashvili (07); Jill Linz (07); Jay Newman (07) and David Trauernicht (07). Meeting with the Committee: Major Gregory Schwarz, West Point.

Members absent: Azar Alizadeh (07); Michael Kotlarchyk; (09);Stacie Nunes (09); Michael Rogers (09) and Cindy Schwarz (09).

1. Approval of minutes from the 2005 fall Symposium at Colgate

Motion to approve: Bob Pompei, seconded by David Trauernicht, Unanimous

2. Report of the Local Committee

- a. Report of local organizers – Lawrence Brehm
There are 75 people registered, 35 students.
- b. Student support – The following policy, that was approved Spring 2003 will be followed;
 - i) Student support will be a maximum \$150 per student, with discretion on the part of the student support coordinator on the amount. Banquet will be \$12 for pre-registered students (with certification by a faculty member at the institution).
 - ii) Bob Pompei reported that 7 students have requested support.
- c. Posters – five posters entered at this point; the judging committee: Roman Kezerashvili, Scott Heinekamp and David P. Trauernicht.

POLICY: (PASSED October 15, 2004) the judging committee may award prizes (up to \$600) FOR POSTERS (no more than \$100 per poster), categories at the discretion of the judges.

Motion to approve: Larry Josbeno, seconded by Stacie Nunes. Unanimous

THE FOLLOWING AWARDS WERE ANNOUNCED AT THE BANQUET:

Poster Awards, NYSS APS mtg, April 2006, *Canandaigua, NY*

Undergraduate category

1st, \$100, Santiago Reyes and Charles Bwalya, Colgate University

1st, \$100, Robert Barton and Corey Lemley, SUNY Oneonta

2nd, \$50, Patrick O'Brien, LeMoyne College

4. Secretary/Treasurer Report - See Appendix A

The finances were discussed at length, with the conclusion being that the finances are in good shape.

NOTE: A Sub-Committee consisting of Larry Josbeno, Enrique Galvez and Gianfranco Vidali was appointed by Chair, James Owens to prepare a Budget to be presented at the Spring Symposium.

5. Future

The following future sites and topics were approved:

- i. Spring 2007 Symposium – United States Military Academy at West Point – Topic to be Determined - Joint Meeting with AAPT/NYSS
- ii. Fall 2007 Symposium - A proposal was made by Jill Linz to host this symposium at Skidmore, as a joint conference with AASNY (the American Astronomical Society, New York (section)).

The topic will be on some aspect of Astrophysics. Concern was expressed about the joint meeting. The only joint meetings held by APS/NYSS have been with AAPT/NYSS. Gianfranco gave assurance that this was not against policy, as long as we use the same ground rules we do with AAPT/NYSS. **Motion to approve: Larry Josbeno, seconded by Lawrence Brehm, Unanimous (This motion was made at the Fall 2005 Symposium).**

The following sites and topics were presented as possible future symposia:

- iii. Spring 2008 Symposium – Corning Community College or Corning Inc. (April 4&5).
- iv. Fall 2008 Symposium – Ithaca College, “Energy Sources”, Michael Rogers
- v. Other possible Future sites: Cornell University, New York City, Canisius College (Buffalo) Vassar (Cindy Schwarz), Stony Brook (Kiko Galvez), and Binghamton. The Spring 2009 Symposium will be the 100th Topical Symposium and may be held at the University of Rochester.

6. Outreach Grants – Jill Linz

Chair Jim Owens appointed a new Chair, Jill Linz, and a new Committee, Kiko Galvez, Larry Josbeno, Bob Pompei and Stacie Nunes.

Four Outreach Proposals were considered:

i. **Cornell University** – “*Expand Your Horizons 2007 at Cornell University*”

Expand Your Horizons (EYH) is a one-day conference for 7th-9th grade girls established at Cornell in 1987. Each girl participates in three workshops they choose from more than organized by Cornell graduate students. The goals of the conference are to stimulate the participants’ interest in science and math through these hands-on activities, to provide female role models, and to foster awareness of opportunities in science-related careers.

If awarded \$1,000 they propose to use the funds for part of their workshop expenses, water bottles, books and educational resources.

The request for this grant was proposed is Robin Smith, graduate student, Physics Department, Clark Hall, Cornell University

Motion to approve request for \$1000.00 grant: Robert Pompei, seconded by Kiko Galvez, Unanimous

ii. **Rensselaer Polytechnic Institute** – Electric Motors to Build and Take Home

The propose is purchase and assemble kits for building a simple electric motor using a D-Cell battery, permanent magnets, wire, and simple household materials. These kits would eventually be used in a fourth grade classroom at an appropriate time during the term, when students are learning about electricity and circuits. Students will each build a motor which they can take home and explore with their families, and there are various options for improving and extending the motors, and these will be discussed as part of the class exercise. This proposal will fund the exercise for selected high school students, who will act as facilitators and mentors in a subsequent activity with the elementary students.

The request for this grant was proposed is James Napolitano, Physics Department, RPI

Motion to approve request for \$200.00 grant: Robert Pompei, seconded by Kiko Galvez, Unanimous

iii. **The Dudley Observatory of Albany**’s request for equipment needed to enhance *Rising Start Internship* program was one of four that were submitted for review this Fall. The New York State Section of the American Physical Society applauds this effort to help increase science awareness by the programs that will be conducted by high school students and supported by the Dudley Observatory. However, the four-member review panel does not feel full funding of these projects is appropriate on a continued basis, but recommends a \$400 grant to assist the Observatory in this project.

The request for this grant was proposed is Janie Schwab, Executive Director, Dudley

Observatory of Albany.

Motion to approve request for \$400.00 grant: Robert Pompei, seconded by Kiko Galvez,
Unanimous

iv. **University of Rochester** – *“High Flyin Muons vs Cosmic Rays”*

Organization: University of Rochester

Principle Proposer: Matt Bishara

Supervising Faculty Member: Prof. Kevin McFarland

TOTAL REQUEST from NYSS/APS \$1,000

High school students will explore particle physics and relativity by using a high altitude balloon to carry two cosmic ray detectors to 80,888-100,000 feet above sea level. The muon rates at each altitude measured through the ascent and will be compared to the number of muons that would be predicted to travel through the atmosphere based on classical and relativistic calculations. Since muons travel close to the speed of light, students expect that the observed number of muons will agree more closely with the relativistic predictions. The students participating in this project will learn about cosmic rays, relativity and experimental techniques. They will communicate their results and research experiments to students attending PARTICLE DAY, a poster conference for area high school students involved in the PARTICLE Program through the University of Rochester.

The request for this grant was proposed by Matt Bishara, Physics Department, University of Rochester.

The New York State Section of the American Physical Society applauds this effort to help increase science awareness and literacy of High School students by providing PARTICLE DAY. However, the four-member review panel does not feel full funding of these projects is appropriate on a continued basis, but recommends a \$400 grant to assist them in this project.

Motion to approve request for \$400.00 grant: Robert Pompei, seconded by Kiko Galvez,
Unanimous

Motion, A report will be required from each completed outreach project, which could be a poster paper or a Website: Gianfranco Vidali, seconded by Kiko Galvez,
Unanimous

7. Elections:

a. APS/NYSS 2007 voting schedule

- Nominations (Slate) presented at fall Meeting.
- All bios to Josbeno by December 10, 2006.
Biographies of the candidates will be printed in the Spring 2007 Newsletter.

- February 5-7. Create the Web ballot, with links to candidate info. Test it.
- February 12. All members will have necessary information for voting online or on paper.
- February 12 or 13. Activate the Web voting site. Send broadcast email to members advising them of the election and the procedures to follow.
- February 19 -23 APS will send paper ballots to all with no email addresses and to those whose email messages bounced. Newsletter or printed bios will be sent to all NYSS members. (Note: A copy of the paper ballot should NOT be included in the Newsletter.)
- March 8. Email reminder to members to vote, and reminder of deadline.
- March 18. Deadline for Web voting.
- March 23. Deadline for receipt of paper ballots.
- March 25. Inform candidates of outcome. Invite winners to attend April Executive Committee meeting at West Point,

b. Nominating Committee:

Robert Pompei, chair

Scott Heinekamp

Larry Josbeno

Michael Kotlarchyk

Stacie Nunes

Michael Rogers

Cindy Schwarz

William Standish (appointed with input from APS)

c. (Tentative) Nominations

Executive Committee (six openings for regular 4-year terms and one opening for a 2-year term as a replacement).

Motion: The six four year openings will be filled by the top six in the voting, and the two year term by number seven:

Gianfranco Vidali, seconded by Kiko Galvez,

Unanimous

APS/NYSS Nominating Committee has nominated the following:

Vice Chair: Sunil Labroo (SUNY Oneonta)

Section Council Observer: James Owens, (Torrey Pines Research)

Executive Committee (seven openings):

Azar Alizadeh (GE)

Nick Bigelow (University of Rochester)

Lawrence Brehm, (SUNY Potsdam)

Enrique Galvez (Colgate University)
Savi Iyer (SUNY Geneseo)
Roman Kezerashvili (CUNY City Tech)
Jill A. Linz (Skidmore College)
Jay Newman (Union College)
Shu Chang (Xerox Labs)
David P. Trauernicht (Eastman Kodak Company)
Gianfranco Vidali (Syracuse University)
Donnell T. Walton (Corning Incorporated)

8. Report from Spring Symposium 2006 - (Canandaigua) – David Trauernicht

See Appendix B.

9. Newsletter Report – Kiko Galvez

Kiko plans to publish a newsletter soon.

Kiko will continue as Editor. A discussion of printing and mailing costs was held. The Spring 2006 Newsletter was printed in color on flat (not glossy) paper; 4050 copies cost \$2258. Printing (8 pages, full-color on 70# white offset text, bleeds on one side and saddle stitched) cost \$2,268.00. Postage (3,853 domestic and 166 foreign) = \$2,712.29. Next Newsletter in B&W. Deadline for articles is Dec.15th duties:

James Owens - "Note from the Chair"
Bob Pompei - "Nomination slate, bios and photos"
Larry Josbeno - Electronic Voting, procedures
Jill A. Linz - Outreach reports
David Trauernicht Canandaigua meeting
Larry Brehm - Potsdam meeting

MOTION: Two Issues will be funded:

1. Spring 2006 – As presented by Kiko Galvez, in flat color to be sent by third class mail.
2. Fall 2006 – A black and white version to include the biographies of the candidates for the Spring 2007 election, to be sent by first class mail.

Motion made by Michael Kotlarchyk; seconded by Scott Heinekamp, Nine in favor, one, Abstention.

Motion for the Amendment: Bob Pompei, seconded by David Trauernicht, Unanimous

By February 12, 2007, all members will have necessary information for voting online or on paper. (The bios of the candidates will be shown in the paper)

10. New Assignments

- a. Newsletter – Kiko Galvez will continue as Newsletter Editor
- b. Student support – Robert Pompei will continue in this position.
- c. Webpage – Larry Josbeno will continue in this position.
- d. Outreach – Jill Linz

11. APS Convocation, February 16 (lobbying)/17/18, 2007.

The APS Convocation is a meeting of all APS units, this is held at College Park MD, and NYSS can send three representatives (officers) at APS' expense.

12. The meeting adjourned at 12:22 PM. Motion to adjourn Robert Pompei, Roman Kezerashvili. Unanimous!

Respectfully submitted,
Larry Josbeno, Secretary-Treasurer

APPENDIX A

Treasurer's Report – October 20, 2006

Assets with APS as of 9/22/2006 were \$42,452.88 down from \$46,538.22, on August 31, 2005, a decrease of \$4,085.34 from a year ago, and a decrease of \$19,985.78 from two years ago.

Expenses since that accounting:

Postage	\$1,026.66
Printing Services	\$ 611.22
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Total	\$1,637.88
Approximate balance	\$40,815.00

NYSS – Membership

1999 – 1,962
2000 – 1,886
2001 – 1,906
2002 – 1,856
2003 – 1,842

HIGHLIGHTS

Student Support -\$558.46
Fall Poster Awards -\$200.00
Outreach -\$3000.00
Dues +\$8,668.00
Investment Income +2,021.40

2004 - 1,871

2005 - 1,938

2006 – 2,167

This is primarily because of symposium expense subsidies, speaker travel, poster awards, and outreach grants. The Section has been committed to increasing outreach (Our Outreach program was lauded at the January 2006 APS Convocation), and our Newsletter expense was both Outreach and an attempt to provide information for our members, and to solicit more members so we can continue to provide student support and promote physics education, especially in Elementary education. There are 3987 APS members living in NYS as well as others in surrounding states, so we have the opportunity to grow.

APPENDIX B

Symposium Summary Report for the 94th Topical Symposium New York State Section of the American Physical Society

**Held on April 7-8, 2006, in Canandaigua, New York
Sponsored by the Infotonics Technology Center, Inc.
Hosted by the Finger Lakes Community College**

Submitted by David P. Trauernicht, Chairman, Local Organizing Committee

Fall Executive Committee Meeting, October 20, 2006

Introduction

The theme of the 94th Topical Symposium of the New York State Section of the American Physical Society was **Physics and Technology of Microsystems**. The field of Microsystems encompasses the broad scope from nanotechnology to MEMS (MicroElectroMechanical Systems). The physics associated with various devices, along with the design and processes involved in fabricating such structures, was discussed. The symposium was sponsored by the Infotonics Technology Center in Canandaigua, NY. The lectures were held at the Finger Lakes Community College in Canandaigua, NY

Members of the local organizing committee were:

- David Trauernicht, Eastman Kodak Company, Local Committee Chair
- Sam Samanta, Finger Lakes Community College, Local Site Host (Sam did an excellent job coordinating activities at FLCC.)
- James C. Owens, Torrey Pines, (also NYSS Exec. Committee Chair)
- Shu Chang, Xerox Corporation

- Gilbert Hawkins, Eastman Kodak Company
- Mark Boysel, Infotonics Technology Center, Sponsor Representative (Mark took over for Bill Hawkins when Bill left the Infotonics Technology Center.)

There were eleven speakers at the symposium covering a range of topics that span a variety of devices and technologies being actively studied in the field. The after-dinner speaker was Prof. Harold Craighead from Cornell University, who gave an excellent presentation (title listed below).

Steamboat Landing in Canandaigua, NY, was the banquet site. The room provided was quite spacious. They provided an area for the poster session, a buffet dinner, and a projector and podium for the after-dinner speaker. The food was very good.

At the conclusion of the symposium, an optional tour of the Infotonics Technology Center was provided. Approximately 42 people attended the tour. Intellisense was scheduled to provide a demo, but was not able to do so.

Registration Information

There were 99 registrants, of which 38 were students. Two did not show up after pre-registering, two attended the banquet only (one guest of Sam Samanta our local host at FLCC, and one wife of a registrant). The lecture hall at FLCC could only hold 120, so this turned out to be an appropriately sized attendance considering the lecture hall capacity. Sixty-five people attended the banquet.

Symposium Program

The next page is the Symposium Program that was provided to the registrants. Overall, the speakers did an excellent job providing tutorial level presentations of a diverse field.

Symposium Program

All presentations will be in **Lecture Room D-214** (except for the Friday evening public lecture).

Registration or check-in starts at noon on Friday, April 7, in the lobby near Lecture Room D-214.

Friday, April 7:

- 9:00 AM: Executive Committee Meeting, Teaching Center, Room A-200, FLCC Library
- 12:00 PM: Registration or Check-in, Lobby near Lecture Room D-214
- 1:15 PM: **Welcoming Remarks**
 - David Trauernicht, Chair, Local Organizing Committee
 - David R. Smith, CEO, Infotonics Technology Center, Inc.
 - Thomas E. Topping, Ed.D. Vice President of Academic Affairs and Dean, FLCC
- 1:30 PM-2:50 PM: Introduction to MEMS & Device Fabrication, Chair: Shu Chang

- 1:30 PM: Nancy Jia Ph.D., MEMS Project Leader, Xerox Corporation, "MEMS Revolution"
- 2:10 PM: Dr. Alan D. Raisanen, Rochester Institute of Technology, "Thin films as Structural Materials"
- 2:50 PM-3:15 PM: **Coffee Break**
- 3:15 PM-4:35 PM: MEMS Packaging & the Lab on a Chip, Chair: Gilbert Hawkins
 - 3:15 PM: Dr. Nancy Stoffel, Sr. Scientist, Infotonics Technology Center, Inc., "Microsystems Packaging"
 - 3:55 PM: T. B. Jones, Department of Electrical and Computer Engineering, University of Rochester "Droplet-based Microfluidics for the Laboratory-on-a-Chip"
- 5:00 PM-6:00 PM: Poster Session, Steamboat Landing
- 6:00 PM-7:30 PM: **Banquet**, Steamboat Landing
- 8:00 PM: **Public Lecture**, Steamboat Landing – Professor Harold Craighead, Applied & Engineering Physics, Cornell University, "Nanoelectromechanical Systems"

Saturday, April 8:

- 8:00 AM-8:40 AM: Registration or Check-in for those attending only Saturday, Lobby near Lecture Room D-214
- 8:40 AM-10:00 AM: Optical Switching & Spintronics, Chair: Sam Samanta
 - 8:40 AM: Roe Hemenway, Science and Technology Division, Corning Incorporated, "A Scalable Optical Cell Switch for Supercomputer Applications Realized with Integrated Planar Lightwave Circuitry"
 - 9:20 AM: Robert Mallory, State University of New York at Buffalo, "Electrical Spin Injection from Ferromagnetic Contacts into GaAs and InAs Based Structures"
- 10:00 AM-10:20 AM: **Coffee Break**
- 10:20 AM-11:40 AM: Entrepreneurial Endeavors in MEMS, Chair: James C. Owens
 - 10:20 AM: Michael Potter, President & CSO Elecsi Corporation, "Embedded Electron Charge Technology"
 - 11:00 AM: Joel W. Grover, Ph.D., Chief Executive Officer, Thermal Gradient Inc., "A Micro-device for PCR as Fast as Nature will Allow"
- 11:40 AM-12:50 PM: **Lunch Break** (lunch not provided)
- 12:50 PM-2:10 PM: Optical Modulators & Infotonics Overview, Chair: David Trauernicht
 - 12:50 PM: Marek W. Kowarz, Display Science & Technology Center, Eastman Kodak Company, "Diffractive MEMS Devices and Systems"
 - 1:30 PM: Dr. Mark Boysel, Chief Scientist, Infotonics Technology Center, Inc., "Microsystems Commercialization: Turning Research Concepts into Real Products"
- 2:10 PM-2:20 PM: **Closing Remarks**
 - James C. Owens, Chair, New York State Section, American Physical Society.
 - Demo and Tour instructions, David Trauernicht, Chair, Local Organizing Committee
- 2:20 PM-3:50 PM: Infotonics Tour and Intellisense Demo, Infotonics Technology Center

Financial Report

The symposium resulted in a small surplus thanks in large part to the generous donation from the sponsoring organization. In addition, the banquet facilities were moderately priced because we were “off season” – there was no setup charge, and the buffet was an early season promotion. Furthermore, the Finger Lakes Community College food service was very reasonably priced. Also, most of the speakers came from businesses and academic institutions nearby, so no one requested assistance with travel expenses. An offer was made to reimburse the after dinner speaker’s travel expenses which were only mileage (he drove back to Ithaca, NY, Friday evening after he gave his lecture). As a small “Thank You” gesture to the speakers, the buffet dinner was provided by the NYSS for those speakers that could attend (8).

The banquet facility needed a “guaranteed count” for food preparation. They were told 70, with a total of 65 attending the banquet. As usual, we subsidized the student banquet costs by offering the dinner at a much reduced rate for students.

Expenses:

Staples -- badges, paper	\$92.00	receipt submitted, reimbursed
Cost of banquet (guaranteed 70)	\$1,411.94	(\$250 down, \$1161.94 balance)
Projector rental	\$100.00	
FLCC food service	\$629.50	
Exec. Comm. Breakfast --	\$75.00	
Exec. Comm. Lunch --	\$87.00	
Coffee breaks and Sat. lunch --	\$467.50	
Poster Awards	\$250.00	
After Dinner Speaker Travel Reimbursement	\$52.00	
Total Costs:	\$2,535.44	

Income:

Donation from Infotonics Center	\$1,000.00
Registration Income	\$1,949.00
Total Income:	\$2,949.00

Surplus: **\$413.56**

Outreach grants awarded, postage and student support far exceed the surplus.

Poster Awards

The poster session took place at the banquet facility. There were a total of 6 posters presented (one institution, SUNY Oneonta, presented 5 of them). Four were undergraduate student posters, one was a graduate student poster, and one was an informational poster from SUNY Oneonta about a science program they run (not part of the judged posters for awards). There were four awards presented:

Undergraduate category

- 1st place: \$100 -- *Video-based Motion Analysis*, by Robert Barton, Joel Peterson & Paul French, SUNY Oneonta
- 2nd place: \$50 -- *Coherent Ionospheric Doppler Receiver (CIDR) Observations of Ionospheric Irregularities and Total Electron Content from SUNY Oneonta*, by Michael Bartels, Andrew Greene, Graham Ostrander & Hugh Gallagher, SUNY Oneonta
- 2nd place: \$50 -- *Monitoring Coronal Mass Ejections Using Images from SOHO*, by Thomas Kelly & Hugh Gallagher, SUNY Oneonta

Graduate student category

- Special Recognition: \$50 -- *Alphavoltaic Micropower Power*, by Cory Cress, RIT