

## Carolina C. Ilie

Tenure Track Assistant Professor

Department of Physics, State University of New York at Oswego  
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~september 2009~

### Professional Preparation

- 8/2008: *Ph.D. Physics and Astronomy, University of Nebraska-Lincoln*,  
Advisor: Prof. Peter A. Dowben, Charles Bessey Professor,  
Physics and Astronomy, University of Nebraska-Lincoln,  
Nebraska Center for Materials and Nanoscience  
“Activated and Nonactivated Water Desorption from Polymer Surfaces”
- 8/2003: *M.Sc. Physics, The Ohio State University*,  
Advisor: Prof. William F. Saam, Chairman, AAAS Fellow  
“Capillar Condensation and Wetting Phenomena”
- 6/1995: *M.Sc. Physics, Semiconductors, University of Bucharest, Romania*  
Advisors: Prof. Minola Leonovici, Dr. Brandusa Iliescu  
Thesis: “Optical and Electrical Properties of Quartz Crystals”
- 6/1994: *B.Sc. Engineering Physics, University of Bucharest, Romania*,  
Advisor: Prof. Mircea Andreescu  
Thesis: “Theory and Applications of Ultrasound Flow Meters”

### Professional Experience

- 2008- Tenure Track Assistant Professor, Physics Department, SUNY Oswego  
2008 Spring Adjunct Instructor of Physics, Nebraska Wesleyan University  
2003-2008 Graduate Teaching Assistant, Physics and Astronomy, UNL  
2003-2008 Graduate Research Assistant, Physics and Astronomy, UNL  
2005-2008 Laboratory Mentor, Physics and Astronomy, UNL  
1999-2003 Graduate Teaching Assistant, Physics, OSU  
1999-2003 Graduate Research Assistant, Physics, OSU  
1994-1999 Assistant Professor of Physics, Arts and Science College, Bucharest, Romania.

### Awards and Honors

- Gordon Research Conference, Chair’s grant for PUI (primarily undergraduate institution) 2009  
American Center for Physics, New Physics and Astronomy Faculty Workshop Grant 2009  
APS, Committee on the Status of Women in Physics – Professional Skills Development Grant 2009  
Conference on Instructional Technologies, Faculty Access to Computing Technology Grant 2009  
Physical Electronics Conference, Nottingham Prize Finalist 2008  
Gordon Research Conference, Young Investigator Competition Award 2007  
Sigma Xi Graduate Research Poster Competition Award 2007  
Division of Chemical Physics, American Physical Society Dependant Child Care Award 2007  
Prepare Future Faculty Fellow, University of Nebraska at Lincoln 2006  
Gordon Research Conference, Chair’s Fund for Early Career Scientists 2005  
University of Nebraska-Lincoln, Othmer Fellowship for Exceptional Scholars 2003-2006  
University of Bucharest, Faculty of Physics, Romanian Government Fellowship 1990-1994

## **Professional Service**

*Sigma Xi secretary, SUNY Oswego chapter 2009-*  
*Committee of Women in Materials Science and Engineering 2009, Materials Research Society 2009-*  
*North East Regional Sigma Xi Poster Competition, SUNY Oswego, judge, 2009*  
*Conference on Institutional Technologies: “Engaging Minds: Innovative Teaching and Learning”,*  
*SUNY Oswego, presenter and facilitator, 2009*  
*Provost's Advisory on Scientific Literacy, SUNY Oswego 2008-*  
*Scholarly and Creative Activity Committee (SCAC) member 2009-*  
*Women in STEM, SUNY Oswego 2008-*  
*Faculty Assembly Representative, SUNY Oswego, 2009-*  
*Physics Department Personnel Committee 2009-*  
*New Faculty Orientation Committee 2009-*  
*Arts and Sciences – SUNY Oswego Representative, AAC&U Engaging Science Workshop, 2008*  
*SUNY Oswego Representative, AAC&U review paper writing, with Charles Henderson (Western*  
*Michigan University) and Barbara Murray (University of Redlands)*  
*Search Committee Member, Computer Science and Engineering Department, SUNY Oswego*  
*Recommendation letters 2008-*  
*Poster design – Physics Department and Research in Physics Department, 2008*  
*Research Advisor – 3 Physics majors and 1 Biology Major, Physics Minor 2009*  
*Referee for the Material Research Society, Surface Science Spectra, Science and Technology Society,*  
*Elsevier*  
*Graduate Student Representative: Search Committee Member, Solid State Physics Faculty Search,*  
*UNL, 2005*

## **Publications**

1. **Carolina C. Ilie**, Petru Lunca-Popa, Jiandi Zhang, Bernard Doudin, Peter A. Dowben, “Mercury and  $C_2B_{10}$  Icosahedra Interaction”, *Mater. Res. Soc. Symp. Proc.* **848** (2005) FF6.5.1-FF6.5.6
2. **Carolina C. Ilie**, Snjezana Balaz, Luis G. Rosa, Jiandi Zhang, P. Lunca-Popa, Christopher Bianchetti, Roland Tittsworth, J.I. Brand, B. Doudin, P.A. Dowben, “The Coadsorption and Interaction of Molecular Icosahedra with Mercury”, *Applied Physics A* **81** (2005) 1613-1618
3. P.A. Jacobson, **Carolina C. Ilie**, I.N. Yakovkin, Matt Poulsen, D. Sahadeva Reddy, James M. Takacs, and P.A. Dowben, “Water Absorption and Desorption from the Dipole Ordered Polymer Poly(methylvinylidene cyanide)”, *J. Phys. Chem. B* **110** (2006) 15389-15392
4. **Carolina C. Ilie**, P. A. Jacobson, Matt Poulsen, Luis G. Rosa, D. Sahadeva-Reddy, James M. Takacs, Stephen Ducharme, and P. A. Dowben, “Angle Resolved Thermal Desorption Studies for Poly(methylvinylidene cyanide) and Poly(vinylidene fluoride trifluoroethylene)”, *MRS Symposium Proceedings* (2007) 0947-A03-01
5. **Carolina C. Ilie**, P.A. Jacobson, I.N. Yakovkin, Matt Poulsen, D. Sahadeva Reddy, James M. Takacs, and P.A. Dowben, “Activated Water Desorption from Poly(methylvinylidene cyanide)”, *J. Phys. Chem. B* **111** (2007) 7742-7746
6. P. A. Dowben, Luis G. Rosa, **Carolina C. Ilie**, “Water Interactions with Crystalline Polymers with Large Dipoles”, *Z.Phys. Chem.* **222** (2008), 755-778 – review article
7. Jie Xiao, **Carolina C. Ilie**, Ning Wu, Keisuke Fukutani, and P.A. Dowben, “Haloform Adsorption on Crystalline Copolymer Films of Vinylidene Fluoride with Trifluoroethylene”, *Surface Science*, 603 (2009) 513-517
8. **Carolina C. Ilie**, Jie Xiao, and P. A. Dowben, “Molecular Adsorption and Fragmentation of Bromoform on Polyvinylidene Fluoride with Trifluoroethylene”, *Mater. Res. Soc. Symp. Proc.* (2009) Vol. 1134-BB01-06

9. Peter A. Dowben, Jie Xiao, **Carolina C. Ilie**, Luis G. Rosa, “Adsorbate/ absorbate interactions with organic ferroelectric polymers”, *Journ. of Electron Spectroscopy and Related Phenomena*, review in the honor of Prof. Bill Salanek, 174 (2009) 10-21
10. Barbara Murray, Charles Henderson, and **Carolina C Ilie**, “Trends in undergraduate science instruction: Taking an Interdisciplinary Approach towards the solution of 21st Century problems”, submitted to *Liberal Education*.

## **Presentations**

### ***National and International***

1. **Ilie, C.C.**, Chartrand, J., Gray, S., Buske, K., Xiao, J., Dowben, P.A., 2009, “The Interaction of Haloforms with Ferroelectric Copolymers of Vinylidene Fluoride with Trifluoroethylene”, **Gordon Research Conference: Dynamics at Surfaces**, Andover, NH.
2. **Ilie, C. C.**, Xiao, Jie, Dowben, P.A., 2009, “Haloform Adsorption on Crystalline Copolymer Films of Vinylidene Fluoride with Trifluoroethylene”, **American Physical Society**, March International Meeting, Pittsburgh, PA.
3. **Ilie, C. C.**, Xiao, Jie, Dowben, P.A., 2008, “Haloform Adsorption on Crystalline Copolymer Films of Vinylidene Fluoride with Trifluoroethylene”, **Material Research Society**, Fall International Meeting, Boston, MA.
4. Rosa, Luis G., **Ilie, Carolina C.**, Dowben, P.A., 2008, “Activated and Nonactivated Water Desorption from Polymer Surfaces”, **Faraday Discussion 141 Water from Surface to Bulk**, Royal Society of Chemistry, Edingburgh, Scotland, UK.
5. **Ilie, C. C.**, Dowben, P.A., 2008, “Activated and Nonactivated Water Desorption from Polymer Surfaces”, **Physical Electronics Conference**, Nottingham prize finalist, Riverside, CA.
6. **Ilie, C. C.**, Jacobson, P.A., Yakovkin, I. N., Rosa, Luis G., Xiao, J., Poulsen, M., Sahadeva Reddy, D., Takacs, James M., and Dowben, P.A., 2007, “Activated Water Desorption from Poly(vinylidene fluoride with trifluoroethylene) and Poly(methylvinylidene cyanide)”, **Gordon Research Conference: Dynamics at Surfaces**, Andover, NH.
7. **Ilie, C. C.**, Jacobson, P.A., Rosa, Luis G., Yakovkin, I. N., Poulsen, M., Sahadeva Reddy, D., Takacs, James M., Ducharme, S., and Dowben, P.A., 2007, “Activated Water Desorption from Poly(methylvinylidene cyanide)”, **American Physical Society**, Denver, CO.
8. **Ilie, C. C.**, Jacobson, P.A., Rosa, Luis G., Yakovkin, I. N., Poulsen, M., Sahadeva Reddy, D., Takacs, James M., Ducharme, S., and Dowben, P.A., 2006, “Water Interactions with the Ferroelectric Polymer PVDF-TrFE and the Dipole Oriented Polymer PMVC”, **Material Research Society**, Fall Meeting, Boston, MA.
9. Day, E., Diaz, M., **Ilie, C. C.**, Adenwalla, S., 2006, “Resistive all boron carbide neutron detectors”, **American Physical Society**, March Meeting, Semiconductor Applications, Baltimore, MD.
10. **Ilie, C. C.**, Balaž, S., Lunca-Popa P., Brand, J. I., Zhang, J., Doudin, B., and Dowben, P. A., 2005, “The Interaction of Molecular Icosahedra with Mercury”, **Gordon Research Conference, Chemistry of Electronic Materials**, New London, CT.
11. **Ilie, C. C.**, Lunca-Popa P., Balaž, S., Zhang, J., Rosa L. G., Doudin, B, Dowben, P. A., 2004, “Mercury and C<sub>2</sub>B<sub>10</sub> Icosahedra Interaction”, **Material Research Society**, Fall Meeting, Boston, MA.
12. Diaz, M. J., **Ilie, C. C.**, Day, E., Adenwalla, S, 2004, “Temperature Dependence of Electrical Conduction Properties of Boron Carbide Thin Films”, **Material Research Society**, Fall Meeting, Boston, MA.
13. **Ilie, C. C.**, Balaž, S., Rosa L. G., Doudin, B, Dowben, P. A., 2004, “The Coadsorption of Mercury and Molecular Icosahedra on Cu(100)”, American Vacuum Society, **The 51<sup>st</sup> International Symposium and Exhibition**, Anaheim, CA.

## *Regional*

1. **Ilie, C.C.**, Lee, Kevin, 2009, “Computer Based Collaborative Problem Solving for Introductory Courses in Physics”, **Conference on Institutional Technologies: “Engaging Minds: Innovative Teaching and Learning”**, May meeting organized at SUNY Oswego, Oswego, NY.
2. Laurion, Wes, **Ilie, C. C.**, 2009, “Water Interaction with Polymers”, **Northeast Regional Undergraduate and Graduate Student Sigma Xi Poster Conference**, April meeting, Oswego, NY
3. Buske, Kenneth, **Ilie, C. C.**, 2009, “Water Interaction with a Photoresist Polymer”, **Northeast Regional Undergraduate and Graduate Student Sigma Xi Poster Conference**, April meeting, Oswego, NY
4. **Ilie, C. C.**, Jacobson, P.A., Yakovkin, I. N., Rosa, Luis G., Xiao, J., Poulsen, M., Sahadeva Reddy, D., Takacs, James M., and Dowben, P.A., 2007, “Intrinsic and Extrinsic Activated Water Desorption from Two Dipole Oriented Polymers”, **The 42<sup>nd</sup> American Chemical Society Midwest Regional Meeting**, Kansas City, MO.
5. **Ilie, C. C.**, Jacobson, P.A., Yakovkin, I. N., Rosa, Luis G., Xiao, J., Poulsen, M., Sahadeva Reddy, D., Takacs, James M., and Dowben, P.A., 2007, “Activated Water Desorption from Poly(vinylidene fluoride with trifluoroethylene) and Poly(methylvinylidene cyanide)”, **The 54<sup>th</sup> Midwest Solid State Conference**, Lincoln, NE.
6. **Ilie, C. C.**, Jacobson, P.A., Rosa, Luis G., Poulsen, Matt, Sahadeva Reddy, D., Takacs, James M., Ducharme, S., and Dowben, P.A., 2006, “Water Interactions with Two Ferroelectric Polymers”, **The 53<sup>rd</sup> Midwest Solid State Conference**, University of Missouri – Kansas City, Kansas City, MO.
7. **Ilie, C. C.**, Balaž, S., Rosa, Luis G., Zhang, J., Lunca-Popa, P., Bianchetti, C., Tittsworth, R., Brand, J. I., Doudin, B., and Dowben, P. A., 2006, “Molecular Icosahedra and Semiconductor Boron Carbide Mercury Coadsorption”, **The 53<sup>rd</sup> Midwest Solid State Conference**, University of Missouri – Kansas City, Kansas City, MO.
8. **Ilie, C. C.**, Lunca-Popa P., Brand, J. I., Balaž, S., Zhang, J., Rosa L. G., Dowben, P. A. and Doudin, B., 2005, “Mercury and C<sub>2</sub>B<sub>10</sub> Icosahedra Interaction”, **Nebraska Research Expo**, Omaha, NE.
9. Lunca-Popa, P., **Ilie, C. C.**, Balaž, S., Brand J. I., 2004, “Electronic structure for polytypes of semiconducting boron carbide”, **The 2004 Midwest Regional American Chemical Society Meeting**, Manhattan, KS.
10. **Ilie, C. C.**, Rosa L. G., Balaž, S., Doudin, B., Dowben, P. A., 2004, “The Coadsorption of Mercury and Molecular Icosahedra on Cu(100)”, **Annual American Vacuum Society Symposium and Equipment Exposition**, 2004 Rocky Mountain Chapter AVS, Colorado School of Mines, Golden, CO.

## *Local*

1. **Ilie, C.C.** and Hay, K., 2009, “How to Implement JITT – Just in Time Teaching?”, **Fifth SUNY-Oswego Symposium on Learning and Teaching, A Celebration of Meaningful Learning: Engaging Students**, Oswego, NY
2. Gray, Shawn, **Ilie, C. C.**, 2009, “Searching for Biological Sensors”, **Quest**, April meeting, Oswego, NY
3. Buske, Kenneth, **Ilie, C. C.**, 2009, “Water Interaction with a Photoresist Polymer”, **Quest**, April

- meeting, Oswego, NY
4. Laurion, Wes, **Ilie, C. C.**, 2009, "Water Interaction with Polymers", **Quest**, April meeting, Oswego, NY
  5. **Ilie, C. C.**, Jacobson, P.A., Yakovkin, I. N., Rosa, Luis G., Poulsen, M., Sahadeva Reddy, D., Takacs, James M., and Dowben, P.A., 2007, "Activated Water Desorption from Poly(methylvinylidene cyanide)", **Nebraska Chapter of Sigma Xi Graduate Student Poster Competition**, Lincoln, NE.
  6. **Ilie, C. C.**, Jacobson, P.A., Rosa, Luis G., Poulsen, Matt, Sahadeva Reddy, D., Takacs, James M., Ducharme, S., and Dowben, P.A., 2006, "Water Interactions with Two Ferroelectric Polymers", **Materials Research Science & Engineering Center Site Visit**, University of Nebraska-Lincoln, Lincoln, NE.
  7. **Ilie, C. C.**, Balaž, S., Lunca-Popa P., Brand, J. I., Zhang, J., Doudin, B., and Dowben, P. A., 2006, "Comparison between Mercury on Molecular Icosahedra and Mercury on Semiconductor Boron Carbide", **2006 Graduate Student Research and Creative Activity Competition Sponsored by the Office of Research and Graduate Studies and the Nebraska Chapter of Sigma Xi**, University of Nebraska-Lincoln, Lincoln, NE.
  8. **Ilie, C. C.**, Balaž, S., Lunca-Popa P., Brand, J. I., Zhang, J., Doudin, B., and Dowben, P. A., 2005, "Mercury Coadsorption with Molecular Icosahedra or Semiconductor Boron Carbide", **NSF and MRSEC Second Review and Symposium**, UNL, Lincoln, NE.
  9. **Ilie, C. C.**, Balaž, S., Lunca-Popa P., Brand, J. I., Zhang, J., Doudin, B., and Dowben, P. A., 2005, "Are Molecular Icosahedra and Semiconductor Boron Carbide Doped by Mercury?", **NeInSci (Nebraska Symposium on Interdisciplinary Graduate Science Research)**, UNL, Lincoln, NE.
  10. **Ilie, C. C.**, Doudin, B., Lunca-Popa P., Brand, J. I., Balaž, S., Zhang, J., Rosa L. G., Dowben, P. A., 2005, "Mercury and C<sub>2</sub>B<sub>10</sub> Icosahedra Interaction", **Sigma Xi Poster Competition**, University of Nebraska-Lincoln, Lincoln, NE.
  11. Diaz, M. J., **Ilie, C. C.**, Adenwalla, S., 2004, "Electrical properties of Boron Carbide Thin Films", **Materials Research Science & Engineering Center**, University of Nebraska-Lincoln, Lincoln, NE.

### **Invited talks**

1. "Research Projects", Science Colloquium, **SUNY Oswego**, June 2009
2. "Ferroelectric Polymers as New Competitive Memory Devices", Science Today, **SUNY Oswego**, April 2009
3. "Ferroelectric Polymers as New Competitive Memory Devices", College Hour, **SUNY Oswego**, February 2009
4. "AAC&U's "Engaging Science, Advancing Learning" Conference: Themes and Strategies", **SUNY Oswego Faculty Workshop**, Presenters: Craig DeLancey, Bill Goffe, **Carolina Ilie**, and Kristen Link, January 2009
5. "Water interactions with crystalline polymers with large dipoles", **Condensed Matter Seminar**, Syracuse University, Syracuse, NY, October 2008
6. "Are inert polymers really inert?", Physics Department, **SUNY Oswego, Oswego, NY**, 2008
7. "Are inert polymers really inert?", Physics Department, **SUNY Potsdam, Potsdam, NY**, 2008
8. "Are inert polymers really inert?", Physics and Geology Department, **Berry College, Rome, GA**, 2008
9. "Water interactions with crystalline polymers with large dipoles", Physics Department, **Rollins College, Winter Park, FL**, 2008

### **Submitted Grants**

Carolina C. Ilie / Department of Physics, State University of New York at Oswego, 123A Snygg Hall, 7060 Route 104, Oswego, NY 13126-3599, tel: 315-312-5751, email: carolina.ilie@oswego.edu

1. August 2009, NSF – MRI-R2: Acquisition of X-ray Characterization Equipment for Research in Chemistry, Geology, and Physics, PI with Casey Raymond and Paul Tomascak, pending
2. July 2009, NSF – Acquisition of a 400 MHz NMR with Chemistry. PI Dr. Bruch, Dr. LeFevre, users Dr. Kadima, Dr. Bendinskas, Dr. Damkaci, Dr. Ilie, pending
3. August 2009, NSF-MRI-R2: Acquisition of JEOL JCM-5700 Scanning Electron Microscope, PI: Dr. Gostling, Dr. Boyer, Dr. Sime, Co-PI: Dr. Ilie, Dr. Pippen, Dr. Raymond, Dr. Saraydar, Dr. Seago, Dr. Valentino, august 2009, pending
4. June 2009, American Physical Society, M. Hildred Blewett Scholarship, Studies of Metal Clusters on Polymer Compounds, International Collaboration with Paul Scherrer Institute and the Swiss Light Source, PI, \$45,000, submitted June 2009
5. March 2009, APS – Women in Physics, Committee on the Status of Women in Physics – Professional Skills Development Grant, \$850 (accepted)
6. October 2008, SCAC – SUNY Oswego, \$2,920 (PI): “Investigation of Water Absorption on Polymers” (accepted)
7. July 2008, American Chemical Society - Undergraduate New Investigator, Petroleum Research Fund (ACS-UNI-PRF), \$50,000 (PI): “Study of dipolar adsorbates on polymer films and applications”
8. May 2008, NSF – Division of Undergraduate Education - Course Development Grant, \$140,000 (PI): ”Laboratory Training in the Nuclear Sciences at the Undergraduate Level”

### **Courses Taught**

- **At SUNY Oswego**

Fall 2009:      Physics 112-800 “General University Physics I”  
                   Physics 423-L50 “Quantum Physics II lab”  
                   Physics 439 “Advanced Electromagnetic Theory”  
                   Physics 496-800 “Senior Research Project”

Spring 2009:    Physics 111-800 “College Physics I”  
                   Physics 213-800 “General University Physics II”  
                   Physics 436-800 “Advanced Mechanics”

Fall 2008:      Physics 111-800 “College Physics”  
                   Physics 111-810 “College Physics”  
                   Physics 439 “Advanced Electromagnetic Theory”

- **At Nebraska Wesleyan University**

Spring 2008:    Physics 054 “Energy and Global Environment” - lecture  
                   Physics 055 “Energy and Global Environment” - laboratory

- **At UNL**

Spring 2008:    Physics 141 “Elementary General Physics I” Laboratory Mentor  
 Fall 2007:      Physics 141 “Elementary General Physics I” Laboratory Mentor  
 Spring 2007:    Physics 141 “Elementary General Physics I” Laboratory Mentor  
                   Physics 361 “Concepts in Modern Physics”, selected lectures  
 Fall 2006:      Physics 141 “Elementary General Physics I” Laboratory Mentor  
                   Physics 213 “General Physics III”, selected lectures  
 Spring 2006:    Physics 361 “Concepts in Modern Physics”, selected lectures

Fall 2005: Physics 212 “General Physics II, Electromagnetism”, Recitation Instructor (Prof. K. Uiterwaal lecturer)  
 Physics 151 “Elements of physics”, Recitation Instructor (Prof. K. Lee lecturer)  
 Physics 141 “Elementary General Physics I” Laboratory Mentor

Spring 2005: Physics 151 “Elements of physics”, Recitation Instructor (Prof. S. Ducharme lecturer)  
 Physics 221 “General Physics Laboratory I”, Laboratory Instructor

Fall 2004: Physics 141 “Elementary General Physics I” Laboratory Instructor

Spring 2004: Physics 141 “Elementary General Physics I” Recitation Instructor (Dr. T. Bykov lecturer)

Fall 2003: Physics 298 “Physics by Inquiry” – (course for K-12 teachers) Laboratory Instructor (Prof. D. Leslie-Pelecky lecturer)

- **At OSU (1999-2003)**

- **Undergraduate level:**

- Calculus Based General Physics, parts 1, 2, and 3 – Recitations Instructor and Laboratory Instructor
    - Algebra Based General Physics, parts 1, 2 and 3 – Recitations Instructor and Laboratory Instructor

- **Graduate level:**

- Classical Mechanics – by H. Goldstein (grader) (Prof. T. Humanic instructor)
    - Introduction to Electrodynamics – by D. J. Griffiths (grader) (Prof. E. Braaten instructor)
    - Introduction to Solid State Physics – by C. Kittel (grader) (Prof. R. Sooryakumar instructor)

- **At “Arts and Sciences College” (1994-1999)**

- Algebra based introductory physics: mechanics, electricity and magnetism, optics, modern physics
  - Mathematics: Introductory courses: Arithmetics, Algebra, Geometry (in plane and in space), Trigonometry, Analytical Geometry, Calculus I and II and III.

### **Community Outreach**

- 2004 - High School Science – Nanotechnology – 7<sup>th</sup> grade students
- 2004-2005 - Saturday Science – 6<sup>th</sup> and 7<sup>th</sup> grade students 2004 and 2005

### **Professional Development Activities**

2009– New Physics and Astronomy Faculty Workshop, June 24-28, College Park, MD

2009–APS Workshop, Women in Physics, Committee on the Status of Women in Physics, *Communication and Negotiations Skills*, March 15th, Pittsburgh, PA

2008 –AAC&U Workshop, *Engaging Science, Advancing Learning: General Education, Majors, and the New Global Century*, November 6-8, Providence, RI

2008 –SUNY Oswego workshops: *Jump Start on Teaching*, (John Kane), *Angel* (John Kane), *Preparing Effective Materials for Retention, Promotion* (Provost Coultrap-McQuin and Deans of each School and College), *Academic Integrity* (David Bozak), *Understanding Budgets* (ORSP - Jack Gelfand, Maria Nakamura), *White Papers and Elevator Talks* (Jack Gelfand and Maria Nakamura), *How to Write Objectives and Work Plans* (Jack Gelfand and Maria Nakamura)

2006 –*Preparing Future Faculty Program*, University of Nebraska – Lincoln  
 Five weeks summer seminar focused on professional development skills followed by a semester long faculty mentoring experience with Professor Nathanael Fackler at Nebraska Wesleyan University.

2003 –UNL - College of Arts and Sciences: *Teaching Assistant Workshop*

One week seminar focused on improving teaching skills and increasing student involvement and interest in the classroom, culminating with personalized feedback and videotape of your own teaching demonstration.

### **Collaborators & Professional Affiliations**

#### **(a) Collaborators:**

- Peter A. Dowben, Physics, University of Nebraska at Lincoln
- Jie Xiao, Physics, postdoc at University of Nebraska at Lincoln
- Li Tan, Engineering Mechanics, University of Nebraska at Lincoln
- Camelia Borca, Paul Scherrer Institute, Swiss Light Source, Switzerland
- Barbara Murray, Chemistry, University of Redlands, Redlands, CA
- Charles Henderson, Physics, Western Michigan University, Kalamazoo, MI
- Katrina Hay, Physics, Pacific Lutheran University, Tacoma, WA

#### **(b) Graduate Advisors:**

- Peter A. Dowben, Department of Physics and Astronomy, University of Nebraska at Lincoln
- William F. Saam, Department of Physics, The Ohio State University, Columbus, OH

#### **(c) Research advisees at Oswego:**

***Undergraduate students:*** Fall 2009 (Wes Laurion, Shawn Gray), Summer 2009 (Jacob Charttrand, Kenneth Buske, Shawn Gray), Spring 2009 (Kenneth Buske, Shawn Gray, Wes Laurion).

#### **(d) Society Memberships**

American Physical Society, 2006 - present

American Association of Physics Teachers, 2008 - present

New York State Section - American Association of Physics Teachers 2009-present

Material Research Society (MRS), 2004 – present

Sigma Xi 2009-

MRS- Women's Committee 2008- present

American Vacuum Society, 2004 - present

American Society for Engineering Education, 2009- present

### **References**

#### **• Peter A. Dowben**

Charles Bessey Professor, Physics & Astronomy  
Nebraska Center for Materials and Nanoscience  
University of Nebraska-Lincoln  
Department of Physics and Astronomy  
255 Behlen Laboratory of Physics  
Lincoln, Nebraska 68588-0111 USA

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#### **• Bernard Doudin**

Professor of Physics, Université Louis Pasteur  
Institut de Physique et Chimie des Matériaux de  
Strasbourg, France  
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Fax : (33) 3 88 10 72 49

E-mail : [Bernard.Doudin@ipcms.u-strasbg.fr](mailto:Bernard.Doudin@ipcms.u-strasbg.fr)

<p>• <b>James M. Takacs</b></p> <p>Charles Bessey Professor, Chemistry  Department Chair  University of Nebraska-Lincoln  Hamilton Hall 807B  Lincoln, NE 68588-0304</p> <p>Phone: (402)-472-6232  E-mail: <a href="mailto:jtakacs@unlserve.unl.edu">jtakacs@unlserve.unl.edu</a></p>	<p>• <b>Anthony Caruso</b></p> <p>Assistant Professor of Physics  University of Missouri - Kansas City  Department of Physics – 257 Flarsheim Hall  5110 Rockhill Road  Kansas City KS 64110</p> <p>Phone: (816)-235-2505  E-mail: <a href="mailto:carusoan@umkc.edu">carusoan@umkc.edu</a></p>
<p>• <b>Shawn Langan</b></p> <p>Lab Manager, Physics and Astronomy  University of Nebraska - Lincoln  302 Ferguson Hall, Lincoln, NE 68588-0111</p> <p>Phone: (402) 472-2199  E-mail: <a href="mailto:palab@unl.edu">palab@unl.edu</a></p>	<p>• <b>Jennifer I. Brand</b></p> <p>Professor, NCMN/ Engineering  University of Nebraska-Lincoln  245N Walter Scott Engineering Center</p> <p>Phone:(402)-472-9320  Email: <a href="mailto:jbrand@unl.edu">jbrand@unl.edu</a></p>