

FACULTY SCHOLARSHIP

2011-2012



NEW YORK CITY COLLEGE OF TECHNOLOGY SCHOOL OF ARTS AND SCIENCES

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INTRODUCTION

The past academic year has been a very productive time for faculty scholarship in the School of Arts and Sciences at City Tech. With an ever increasing scholarly output, research continues to become a more valued and integral part of our faculty's careers. The newsletter highlights publications, presentations, grants, and other scholarly activities of our faculty from September 2011 through August 2012.

Hans Schoutens, Chair
Research and Grants Committee
School of Arts and Sciences
New York City College of Technology

This past year Biological science welcomed two new faculty members to the department, Prof Maria Sol Flaherty and Prof Davida S. Smyth. Professors Laina Karthikeyan, Jeremy Seto, Marie Montes-Matias, Ralph Alcendor, Davida Smyth, Andleeb Zameer and Liana Tsenova contributed posters at the 10th **Annual Poster Session** for Faculty and Students at New York City College of Technology. Several faculty members worked on an institutional grant proposal "Bridges to the Baccalaureate Program" (R25), Funding source NIH: S. Williams (PI), M. Montes-Matias, T. Voza, A. Solis and L. Tsenova. The Bridges to the Baccalaureate Program at City Tech represents an integrated set of student developmental activities conducted in partnership with Brooklyn College that promotes academic excellence and facilitates the timely progression of underrepresented students from associate to baccalaureate degree in the biomedical sciences. Prof. Tsenova's interdisciplinary research project with the Mathematics department on Nosocomial infections was reflected in an article "Microbiology Adds Life To Mathematics", Lois M. Baron. MAA Focus — June/July 2011.

Individual Faculty Research Activity

Ralph Alcendor received a Perkins grants (\$41,900, awarded 2012). He published the papers

- ▲ Oka S, Alcendor R, Zhai P, Park JY, Shao D, Cho J, Yamamoto T, Tian B, Sadoshima J. PPAR α -Sirt1 complex mediates cardiac hypertrophy and failure through suppression of the ERR transcriptional pathway. 2011. Cell Metab. 14(5): 598-611.
- ▲ Oka S, Zhai P, Alcendor R, Park JY, Tian B, Sadoshima J. Suppression of ERR targets by a PPAR α /Sirt1 complex in the failing heart. 2012. Cell Cycle. 11(5): 856-64.

Sanjoy Chakraborty published the following papers

- ▲ Chakraborty TR, Allicia E, Chakraborty, S. Relationships between urinary biomarkers of phytoestrogen, pthalates, and phenols and pubertal stages in girls. 2012. Adolescent Health, Medicine, and Therapeutics 3, 17-22.
- ▲ Alecea E, Yohanan D, Cohen J, Addya S, Chakraborty S, and Chakraborty TR. 2012. Neuroprotection of estrogen on hypoglycemic attack is through AKT/GSK3b pathway. FASEB J, 26: 969.9.
- ▲ Yohannan D, Cohen J, Min I, Addya S, Chakraborty S and Chakraborty TR. Neuroprotection by estrogen on hypoglycemic injury on hypothalamic cells at the cellular and molecular level. FASEB J, 25, 753.9

Prof. Chakraborty served as a panel judge for scientific poster evaluations in 45th Annual conference of the Metropolitan Association of College and University Biologist (MACUB). He gave the following presentation:

- ▲ "Neuroprotection of estrogen on hypoglycemic attack is through AKT/GSK3b pathway", Research poster in Annual Meeting of Experimental Biology held in April 2012, San Diego.
- ▲

Majeedul Chowdhury published the following papers

- ▲ Shahreen S, Banik J, Hafiz A, Rahman S, Zaman AT, Shoyeb A, Chowdhury MH, and Rahmatullah, M. Antihyperglycemic activities of leaves of three fruit plants (Averrhoa carambola, Ficus hispida

and *Syzygium samarangense*) of Bangladesh. *African Journal of Traditional, Complementary and Alternative Medicines*. 2012. 9(2): 287-291, 2012

- ▲ Ahmed F, Rahman S, Ahmed N, Hossain M, Biswas A, Sarkar S, Banna H, Khatun A, Chowdhury MH, Rahmatullah M. Evaluation of *Neolamarckia cadamba* (Roxb.) Bosser leaf extract on glucose tolerance in glucose-induced hyperglycemic mice. 2011. *Afr J Tradit Complement Altern Med*. 8(1): 79-81.

Maria Sol Flaherty participated in the Science and Education Fellowship program of the New York Academy of Science, a program to promote Science at a young age. She published the paper

- ▲ Ntziachristos P, Tsigirigos A, Van Vlierberghe P, Nedjic J, Trimarchi T, Flaherty MS, Ferres-Marco D, da Ros V, Tang Z, Siegle J, Asp P, Hadler M, Rigo I, De Keersmaecker K, Patel J, Huynh T, Utro F, Poglio S, Samon JB, Paietta E, Racevskis J, Rowe JM, Rabadan R, Levine RL, Brown S, Pflumio F, Dominguez M, Ferrando A, Aifantis I. Genetic inactivation of the polycomb repressive complex 2 in T cell acute lymphoblastic leukemia. 2012. *Nat Med*. 18(2): 298-301.

Davida S. Smyth published the following papers:

- ▲ Mendes RE, Deshpande LM, Smyth DS, Shopsin B, Farrell DJ, Jones RN. Characterization of methicillin-resistant *Staphylococcus aureus* strains recovered from a Phase IV clinical trial for linezolid versus vancomycin for treatment of nosocomial pneumonia. 2012. *J Clin Microbiol*. 50(11): 3694-702.
- ▲ Smyth DS, Kafer JM, Wasserman GA, Velickovic L, Mathema B, Holzman RS, Knipe TA, Becker K, von Eiff C, Peters G, Chen L, Kreiswirth BN, Novick RP, Shopsin B. Nasal carriage as a source of agr-defective *Staphylococcus aureus* bacteremia. 2012. *J Infect Dis*. 206(8): 1168-77.
- ▲ Chen L, Shopsin B, Zhao Y, Smyth D, Wasserman GA, Fang C, Liu L, Kreiswirth BN. Real-time nucleic acid sequence-based amplification assay for rapid detection and quantification of agr functionality in clinical *Staphylococcus aureus* isolates. 2012. *J Clin Microbiol*. 50(3): 657-61.
- ▲ Smyth DS, Wong A, Robinson DA. Cross-species spread of SCCmec IV subtypes in staphylococci. 2011. *Infect Genet Evol*. 11(2): 446-53.

Prof. Smyth gave the following presentations:

- ▲ Nasal carriage as a source of agr-defective *Staphylococcus aureus* bacteremia. In Proceedings of the 112th General Meeting of ASM in San Francisco, June 16-19, 2012. Poster presentation
- ▲ Genotypic and phenotypic characterization of methicillin-resistant *Staphylococcus aureus* strains recovered from a Phase IV clinical trial for linezolid versus vancomycin for the treatment of nosocomial pneumonia. In Proceedings of the 22nd European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) Mar 30 – April 2, 2012. Oral presentation.

Laina Karthikeyan served as a panelist at Citytech's panel presentation on "Publishing Educational Research" organized by Associate Provost Pamela Brown on October 3, 2012. She was awarded an NEH Grant 2012 (\$74,986), *Humanities Initiatives at Hispanic Serving Institutions, Comparative Perspectives on Health, Illness, and Healing*. She published the following book chapters and papers

- ▲ Brown, G.C., and L. Karthikeyan 2012. Integration of Civic Engagement Pedagogies in the STEM Disciplines in the book, titled "Cases on Interdisciplinary Research Trends in Science, Technology, Engineering, and Mathematics: Studies on Urban Classrooms", published by IGI Global.
- ▲ Shashidharan, P. and L. Karthikeyan 2012. Causes of Dystonia: Implications of Genetic and Environmental Factors in the Manifestation of Dystonia in G.Rajarami Reddy, Dr. Flora and Dr. Riyaz (ed), *Environmental pollution, Ecology and Human Health*. NAROSA Publishing Co, New

Delhi, India.

- ▲ Lipson, S.M., R. S. Gordon, L. Karthikeyan, F. S. Ozen. Effect of pH on the antiviral activity of comestible juices and proanthocyanidins utilizing a cell-free assay system. 2012. Food and Environ Virol 4: 168-78.
- ▲ Lipson, S.M., R.E. Gordon, F. S. Ozen, L. Karthikeyan, G. Stotzky. Effect of Cranberry and grape juices on tight junction function and structural integrity among rotavirus-infected monkey kidney epithelial cell culture monolayers. 2011. Food and Environ Virol 3: 46-54.

Prof. Karthikeyan gave the following presentations:

- ▲ Effect of Flavonoids on the Loss of Rotavirus Infectivity Using a Quantitative Cell-Free Assay System. New England Science Symposium. Oral Presentation. April 1st, 2012. Sponsored by Harvard Medical School, Boston, Massachusetts.
- ▲ Direct loss of rotavirus infectivity in suspension by flavonoids using a cell-free virus capsid antigen detection assay system. Abstr. Ann. Mtg. ABRCMS, Amer. Soc. Microbiol., St. Louis, MO. Nov. 9-12, 2011. Exhibit Hall 4, Graduate/Awardee Section. Poster Pres. No.C020, Session 3.
- ▲ Significance of flavonoid structure on the differential effect of rotavirus infectivity loss in the cell-free experimental system. Environmental Health and Health of the Environment: A Conference. Sponsored by the Dept. of Biology and Health Promotion, The Environ. Club, The Assn. Women Sci. Nov. 9th, 2011. St. Francis College, Brooklyn Heights, NY.
- ▲ Mechanism of rotavirus inactivation by catechins: Use of red blood cells as a model system. Abstr. 44th Ann. MACUB Conference. October 29, 2011. Conference hosted by Seton Hall University.
- ▲ Flavonoids as antiviral agents: Unique chemical structures associated with loss of rotavirus infectivity. "Spring Ahead/Fall Back". Annual Presentations of Biology and Health Promotion Student Summer Research. St. Francis College, Brooklyn Heights, NY, October 13th, 2011.
- ▲ Investigations into the mechanism(s) of plant metabolites and comestible juices on the loss of rotavirus infectivity. Abstr., 111th Gen. Mtg. Amer. Soc. Microbiol. May 21-24, 2011. New Orleans, LA. Session No. 064, Poster Board no. 822.
- ▲ "Optimal Health" at the "International Health, Wellness and Society Conference in January 20-22, 2011 at the University of California, Berkeley California

Vasily Kolchenko published the paper

- ▲ Dantham V.R., Holler S., Kolchenko V., Wan Z., Arnold S. Taking whispering gallery-mode single virus detection and sizing to the limit. 2012. Applied Physics Letters 101, 043704.

Prof. Kolchenko gave the following presentations:

- ▲ Dynamic Programming Across the Computer Science Curriculum. Proceedings of the 43rd ACM SIGCSE Technical Symposium on Computer Science Education, 671. 2012.
- ▲ A Model of Interdisciplinary Curricular Collaboration: inquiry Based Real-World Case Studies for Introductory Bioinformatics and Computer Science Courses. In Proceedings of the 2011 International Conference on Frontiers in Education: Computer Science and Computer Engineering, 547-551. 2011.

Walied Samarra published the paper

- ▲ Samarra W, Liu DX, White AM, Studamire B, Edelstein J, Srivastava A, Widom RL, Rudner R. Differential responses of Bacillus subtilis rRNA promoters to nutritional stress. 2011. J Bacteriol. 193(3): 723-33.

Jeremy Seto was awarded a PSC-CUNY 43 Research Award # 65127-00 43. 2012. Effects of cytokine exposure from infection and stress on neurodevelopment. He published the following papers

- ⤴ Moreno JL, Muguruza C, Umali A, Mortillo S, Holloway T, Pilar-Cuellar F, Mocci G, Seto J, Callado LF, Neve RL, Milligan G, Sealfon SC, Lopez-Gimenez JF, Meana JJ, Benson DL, González-Maeso J. Identification of Three Residues Essential for 5-HT_{2A}-mGlu₂ Receptor Heteromerization and its Psychoactive Behavioral Function. 2012. J Biol Chem.
- ⤴ Argaw AT, Asp L, Zhang J, Navrazhina K, Pham T, Mariani JN, Mahase S, Dutta DJ, Seto J, Kramer EG, Ferrara N, Sofroniew MV, John GR. Astrocyte-derived VEGF-A drives blood-brain barrier disruption in CNS inflammatory disease. 2012. J Clin Invest. 122(7): 2454-68.

Marie Montes-Matías received a GRTI grant Round 15, March 2012 (\$19,500). She gave the following presentation:

- ⤴ “*Undergraduate Research and Mentoring Initiatives at New York City College of Technology*” 8th Annual CUE Conference: A CUNYVerse of Innovations. College of Staten Island May 11, 2012

Olufemi Sodeinde was awarded a Perkins grant (\$41,900). He published the paper

- ⤴ Theories in practice: A focus on STEM at City Tech. In R. D. Lansiquot (Ed.) Cases on interdisciplinary research trends in science, technology, engineering, and mathematics: Studies on urban classrooms. 2012. New York: IGI Global

Armando Solis received a Diversity Project Development Fund, CUNY (2011). “Increasing Student Success in Bioinformatics through Inquiry-Based Modules”, and a William Stewart Travel Award (2011), for the RECOMB 2011 conference. He was awarded a fellowship to attend week-long intensive course in Biomedical Informatics at Marine Biology Laboratory, Woods Hole, MA, sponsored by the National Library of Medicine of the NIH (2011), and gave the following presentations:

- ⤴ “Optimal Use of Protein Structural Data for Knowledge-Based Potentials.” 15th Annual International Conference on Research in Computational Molecular Biology, RECOMB 2011 (Vancouver, Canada).
- ⤴ “Maximal Use of Information Found in All Protein Structure Data.” 19th Annual International Conference on Intelligent Systems for Molecular Biology, ISMB 2011 (Vienna, Austria).
- ⤴ “Reimagining the Lab Report in Chemistry and Biology.” Panel presentation for the 7th Annual CUNY General Education Conference at York College.

Liana Tsenova was a panelist at Citytech’s panel presentation “Publishing Educational Research” organized by Associate Provost Pamela Brown on October 3, 2012. She published the following papers

- ⤴ Subbian S, Tsenova L, O'Brien P, Yang G, Kushner NL, Parsons S, Peixoto B, Fallows D, Kaplan G. Spontaneous latency in a rabbit model of pulmonary tuberculosis. 2012. Am J Pathol. 181(5):1711-242.
- ⤴ Subbian S, Tsenova L, Yang G, O'Brien P, Parsons S, Peixoto B, Taylor L, Fallows D, Kaplan G. Chronic pulmonary cavitary tuberculosis in rabbits: a failed host immune response. 2011. Open Biol. 1(4): 110016.
- ⤴ Ghosh-Dastidar U. and L. Tsenova. Bio-Math Mapping: Water Quality Analysis of Hudson River and Gowanus Canal, A SENCER-based Summer Project. 2012. Science Education and Civic Engagement: An International Journal. 4:1
- ⤴ Subbian S, Tsenova L, O'Brien P, Yang G, Koo MS, Peixoto B, Fallows D, Dartois V, Muller G, Kaplan G. Phosphodiesterase-4 inhibition alters gene expression and improves isoniazid-mediated clearance of Mycobacterium tuberculosis in rabbit lungs. 2011. PLoS Pathog. 7(9): e1002262.
- ⤴ Subbian S., L. Tsenova, P. O'Brien, G. Yang, M. Koo, B. Peixoto, D. Fallows, J. Zeldis, G. Muller and G.

Kaplan. PDE4 inhibition combined with INH treatment of rabbits with pulmonary tuberculosis reduces macrophage activation and lung pathology. 2011. *Am J Pathol* 179(1): 289-301.

- ⤴ Singhal. A, Aliouat E, Hervé M, Mathys V, Kiass M, Creusy C, Delaire B, Tsenova L, Bertout L, Camacho L, Foo D, Tay H.C, Yee S. J, Boukhouchi W, Romano M, Mathema B, Dartois V, Kaplan G, Bifani P. Experimental tuberculosis in the Wistar rat: A model for protective immunity and control of infection. 2011. *PLoS One*. 6(4): e18632.
- ⤴ Koo M., C. Manca, G. Yang, P. O'Brien, N. Sung, L. Tsenova, S. Subbian, D. Fallows, G. Muller, S. Ehrt and G. Kaplan. Phosphodiesterase 4 Inhibition Reduces Innate Immunity and Improves Clearance of Mycobacterium tuberculosis in the Lungs of Infected Mice. 2011. *PLoS ONE* :6(2) .

Prof. Tsenova gave the following presentations:

- ⤴ Citytech's Commitment to Integrate Civic Engagement Pedagogies in the STEM Disciplines. SENCER Summer Institute Poster Presentations, July 22, 2011, Indianapolis, Indiana.
- ⤴ Phosphodiesterase-4 Inhibition Improved INH Induced M. tuberculosis Killing and Reduces Lung Pathology in Rabbits with Pulmonary TB. Gordon Research Conference: Tuberculosis 5. Drug Development, 3-8 July, 2011, Lucca, Italy
- ⤴ Impact of the Modulation of Macrophage Activation by a phosphodiesterase-4 (PDE4) inhibitor on the Isoniazid Response to Mycobacterium tuberculosis. Gordon Research Conference: Phagocytes. Davidson, NC, 18-24 June 2011.
- ⤴ Bio-Math Connection, Our Community and Civic Engagement – Two SENCER based projects at Citytech. General Education CUNY Conference at York College, New York, May 13, 2011.
- ⤴ Citytech's Commitment to Integrate Civic Engagement Pedagogies in the STEM Disciplines. Science Education for New Civic Engagements and Responsibilities. Center for Innovation, Midatlantic Region Spring Conference, Barnard College, Columbia University, April 30, 2011, New York.
- ⤴ Connecting Biology and Mathematics - Two Research Projects at Citytech. 5th Annual City Tech Research Conference. April 1, 2011, Brooklyn, NY.

Tatiana Voza received a PSC-CUNY award (\$3,499.64). She published the following papers:

- ⤴ Hobbs CV, Voza T, De La Vega P, Vanvliet J, Conteh S, Penzak SR, Fay MP, Anders N, Ilmet T, Li Y, Borkowsky W, Krzych U, Duffy PE, Sinnis P. HIV Nonnucleoside Reverse Transcriptase Inhibitors and Trimethoprim-Sulfamethoxazole Inhibit Plasmodium Liver Stages. 2012. *J Infect Dis*. 206 (11): 1706-14.
- ⤴ Voza T, Miller JL, Kappe SH, Sinnis P. Extrahepatic exoerythrocytic forms of rodent malaria parasites at the site of inoculation: clearance after immunization, susceptibility to primaquine, and contribution to blood-stage infection. 2012. *Infect Immun*. 80 (6): 2158-64.

Prof. Voza gave the following presentation:

- ⤴ 60th Annual Meeting of the American Society of Tropical Medicine and Hygiene, Dec 4-8th 2011, Philadelphia, PA, USA. Abstract accepted for oral presentation.

Selwyn Williams gave the following presentations

- ⤴ "Solid phase binding assays reveal cryptic molecular interactions between Fibronectin Type III modules." *Mol. Biol. Cell*. 22:S, 2253. Poster presented at the 51st annual meeting of the American Society For Cell Biology (ASCB), Denver, Colorado, December 3-7, 2011.
- ⤴ "A novel cyclin-related protein interacts with a class XIV myosin and affects elongation of the macronucleus at amitosis in *Tetrahymena thermophila*." *Mol. Biol. Cell*. 22:S, 1881. Poster presented at the 51st annual meeting of the American Society for Cell Biology (ASCB), Denver, Colorado, December 3-7, 2011.

Yehia Ghassan published the following papers:

- ⤴ Zhao Q, Beck AJ, Vitale JM, Schneider JS, Chang C, Gao S, del Re D, Bhaumik M, Yehia G, Sadoshima J, Fraidenraich D. Injection of wild type embryonic stem cells into Mst1 transgenic blastocysts prevents adult-onset cardiomyopathy. 2011. *Stem Cell Rev.* 7(2): 326-30.
- ⤴ Takagi H, Hsu CP, Kajimoto K, Shao D, Yang Y, Maejima Y, Zhai P, Yehia G, Yamada C, Zablocki D, Sadoshima J. Activation of PKN mediates survival of cardiac myocytes in the heart during ischemia/reperfusion. 2010. *Circ Res.* 107(5): 642-9.

Andleeb Zameer received an GRTI grant Round 15 (\$18,089) and a PSC-CUNY Award # 65122-00 43, 2012 (\$3500). He published the following papers

- ⤴ Zhang J, Zhang Y, Dutta DJ, Argaw AT, Bonnamain V, Seto J, Braun DA, Zameer A, Hayot F, López CB, Raine CS, John GR. Proapoptotic and antiapoptotic actions of Stat1 versus Stat3 underlie neuroprotective and immunoregulatory functions of IL-11. 2011. *J Immunol.* 187(3): 1129-41.
- ⤴ MacDonald, S., Sodeinde, O, & Zameer, A. Theories in practice: A focus on STEM at City Tech. In R. D. Lansiquot (Ed.) *Cases on interdisciplinary research trends in science, technology, engineering, and mathematics: Studies on urban classrooms.* 2012. New York: IGI Global.

HUMANITIES

Compiled by Ann Delilkan

As always, we have been busy far beyond New York City—from Cambridge, UK to Kalamazoo, Michigan—as well as around CUNY and within City Tech. Susan Beningson was invited to be Commentator at Large for the Lo Archive Workshop on Buddhist Cave-Temples at Dunhuang (China) at Princeton University, April 14-16, 2011. Sarah Standing participated in the **Faculty Fellowship Publication Program** at the Office of Diversity, CUNY, via Baruch School of Journalism in Spring, 2012. She is City Tech's representative for Bridging Education and Theatre (BEAT) partnership between CUNY and Theatre Development Fund (TDF). A little closer to home, Sandra Cheng made a contribution on the **Living Lab to Nucleus**, the Faculty Commons magazine here at City Tech, and presented on high-impact learning practices at "Living Lab in Action," the first public event of the Title V-funded General Education initiative on September 23, 2011. She also gave a presentation on high-impact learning practices at First Year Associate Fellows Workshop on January 26, 2012.

2011-12 was in some ways a special year for the Department, as we launched our **Works in the Works** speaker series, with a total of 8 presentations given in the very first year by Sarah Standing, Stephanie Smolinsky, Susan Beningson, Sandra Cheng, Michael McAuliffe, James Schlefer, Christopher Swift, and Frank Dezego. The presentation topics ranged from creative writing readings, art history, activist theatre, and poetry analysis, to performances of Japanese flute music and accounts of mechanical devices used in medieval theatre—quite a spread! Our series continues through 2012-13 and we already have a full schedule of speakers set up.

On a sad note, we bid farewell to our beloved Carmen Valle, who retired on March 3rd, 2012. We're proud to say though, that for her wide (and still expanding!) range of publications in poetry and long service to the College, Carmen was conferred Associate Professor Emeritus status by President Hotzler on May 17th, 2012, making her only the second person in City Tech to be conferred the title. Carmen remains active and busy in retirement and has multiple publications already in the works since then.

Individual Faculty Research Activity

Susan L. Beningson published the paper

- ▲ "Auspicious Emblems: Connections between Qing Dynasty Snuff Bottles and an Imperial Chinese Robe in the Collection of the Brooklyn Museum of Art, Part 1," *Journal of the International Chinese Snuff Bottle Society*, Baltimore, Md. (Spring 2012), pp. 6-19 (English article with Chinese translation).

Prof. Beningson gave the following presentations

- ▲ "The Northern Wei Capital at Pingcheng: A Report from Recent Fieldwork on Ritual Architecture and Ethnicity in Early Medieval China," Columbia University, Early China Seminar, May 12, 2012.
- ▲ "Contemporary Chinese Artists Respond to the Past," City College of New York, CUNY, Art Department, May 3, 2012

Sandra Cheng received a PSC-CUNY Research Award, "Drawing Games: Play, Virtuosity, and Draftsmanship in the Carracci Studio" for 2012-13. She published the paper:

- ⤴ "La Touche satirique du Bernini: dessin et caricature comme acte performatif au début de l'époque moderne (Bernini's Satirical Touch: Early Modern Drawing and Caricature as Performance)," *Roven*, 8 (Automne-Hiver, 2012-2013): 50-53.
(<http://www.lespressesdureel.com/ouvrage.php?id=2622&menu=>)

Prof. Cheng gave the following presentations:

- ⤴ "The Carracci, Caricature, and Studio Practice." Paper presented at the annual international meeting for the Renaissance Society of America, Washington, DC, March 22-24, 2012.
- ⤴ "Ridiculous Portraits: Theories of the Comic Ugly and Early Modern Caricature." Paper presented at an international colloquium, *Rire en images à la Renaissance/Laughter in Renaissance Paintings*, hosted by the Centre allemand d'histoire de l'art and Centre d'histoire de l'art de la Renaissance, HiCSA, Université Paris I Panthéon-Sorbonne, Paris, France, March 7-10, 2012.

Justin Davis published the paper:

- ⤴ Kelley, S. E., & Davis, M. J. (2011). Just another brick in the wall... or not? A paradigm introduction activity. *Communication Teacher*, 25:4, 222-227.

Roxana Delbene gave the following presentation

- ⤴ "Performing existence: Narrating HIV/AIDS disease" presentation at the tenth Interdisciplinary Conference on Communication, Medicine and Ethics, Trondheim, Norway, Norwegian University of Science and Technology (NTNU), June 28-30, 2012.

George Romaine performed the following dramatic Reading:

- ⤴ 'The Skin Horse' George Romaine Author/Director. Dramatists' Guild, NYC. March 2, 2011

Denise Scannell published the following paper:

- ⤴ "Amanda Knox and the Bella Figura." Forthcoming in *Italian Americana Journal*, 2012.

Prof. Scannell gave the following presentation:

- ⤴ "Amanda Knox and the Bella Figura: Performing a Guilty Verdict." American Italian Historical Association. Tampa, Florida. October 2011.

Sarah Standing received a PSC-CUNY TRAD-B 43-133, *Workshop production of original play Climate Changes Culture*, and a PSC CUNY 42 Trad A Award Project to interview and archival research on Canada's "leading living composer" (Toronto Star), R. Murray Schafer. She was awarded a William Stewart Travel Award to present "Greenpeace as Intermediated Theatre" at the Earth Matters On Stage Conference, Carnegie-Mellon University, Pittsburgh, PA. May 31-June 3, 2012, and a "Writer in Residence" position to work on *Climate Changes Culture*, at artist's center: Aunt Karen's Farm, Cooperstown, NY. April 6-16, 2012. She published the following papers

- ⤴ "Telling Our Stories: Community-Created Theatre as Intra-Cultural Diplomacy in a Transnational World." *Theatre Topics Special Issue: Theatre and Cultural Diplomacy*, Johns Hopkins University Press, 21.2 (2011): 139-49.

- ⤴ “Earth First!’s ‘Crack the Dam’ and the Aesthetics of Ecoactivist Performance” chapter in Arons and May (eds.), *Readings in Performance and Ecology*, New York, NY: Palgrave Macmillan (May 2012).

Prof. Standing gave the following presentation

- ⤴ “Greenpeace as Intermediated Theatre” at Earth Matters on Stage Conference, Carnegie-Mellon University, May 31-June 3rd, 2012.

Christopher Swift published the following papers

- ⤴ “Iberian Theatre and Performance,” *Medieval Studies: Oxford Bibliographies Online*, edited by Paul E. Szarmach. Oxford University Press, 2012.
- ⤴ “A Penitent Prepares: Affect, Contrition, and Tears.” In *Crying in the Middle Ages: Tears of History*, edited by Elina Gertsman, 79-101. London: Routledge, 2011.
- ⤴ “‘The Spanish Match’: Ceremony, Diplomacy, and the Reading Public” (with Rachel Burk). *Ritual and Ceremony: Late-Medieval Europe to Early America, Primary Sourcebooks for the College Classroom*. Folger Shakespeare Library, 2011.

Prof. Swift gave the following presentations:

- ⤴ “Robot Saints: A Provisional Theory of Animated Devotional Objects,” *The International Congress on Medieval Studies*, Kalamazoo, Mich., May 2012.
- ⤴ “Articles in Progress Workshop,” *Mid-America Theatre Conference*, Chicago, March 2012.

Shauna Vey gave the following presentations:

- ⤴ “Greasepaint and Sugarplums: Child Actors as Workers in the 1800s.” *BMCC Center for Excellence in Teaching, Learning, and Scholarship, Children’s Studies Faculty Interest Group*, 9/8/2011.
- ⤴ “Shifting economic practices in the employment of nineteenth-century child performers.” *Society for the Study of Childhood in the Past (SSCIP)*, Cambridge UK, 9/30/2011.
- ⤴ “An Antebellum Child-Actor Contract: Alfred Stewart and the Shift from Craft Apprentice to Wage Laborer.” *American Society for Theatre Research (ASTR)*, Montreal, 11/19/2011.
- ⤴ “Monetizing the Contributions of Children to Commercial Entertainment: A 19th-Century Debate Resurfaces in the 21st. A. *Mid-America Theatre Conference (MATC)*, Chicago, 3/2/2012

Activities on research and development have again increased this year in our department. Nine faculty members contributed a poster at the **Ninth Annual Poster Session** for Faculty and Students: Professors Delaram Kahrobaei (5 with students), Laura Ghezzi, Samar ElHitti, Andrew Douglas, Lin Zhou, Holly Carley, Hans Schoutens, Ezra Halleck, and Sheila Miller.

Professor Delaram Kahrobaei chaired the organizing committee of the **Sixth Annual City Tech Research Conference**. Professors Masuda, Halleck, Carley, Kivran-Swaine, Klimi, Bonanome, and Miller presented at the conference and many faculty members participated and helped in the organization.

This year, once more, the joint **Math/Physics Colloquium** was well attended. We had two excellent outside speakers, Professors Ben Fine and Vlad Dobrushkin, and a pedagogical seminar presented by Professors ElHitti and Bonanome.

Professors Kahrobaei and Schoutens continued the successful **Mathematics Seminar Series**. We had two outside speakers (Professors Miller and Cherkas), as well as a talk by Professor Ariana Masuda.

Professors Douglas, Gitman and Kahrobaei continued the **C-LAC (Center for Logic, Algebra, and Computation) Seminar Series**, with two outside speakers (Professors Kopec and Steinberg) and a talk by our own faculty, Prof. Gitman.

Mathematics faculty have also been very active in (co)-organizing **seminars at the CUNY Graduate Center**: Applied Mathematics (Prof. Yuce), Commutative Algebra and Algebraic Geometry (Profs. ElHitti, Ghezzi, Schoutens), CUNY Logic Workshop (Prof. Schoutens), CUNY Representation Theory Seminar (Prof. Douglas), Mathematical Aspects of Cryptography Student Seminar (Prof. Kahrobaei), Model Theory (Prof. Schoutens), New York Algebra Colloquium (Profs. Douglas and Kahrobaei). Several other faculty members gave talks and participated in the seminars.

Once more, many math department members supervised student research, supported by programs including the National Science Foundation, the Emerging Scholars and the Honors Scholars. One student, mentored by Professor Satyanand Singh, presented at the **Annual City Tech Student Research Conference**. Several faculty members served in the organizing committee of the conference, chaired by Professor Delaram Kahrobaei.

Individual Faculty Research Activity

Marianna Bonanome published the following:

- ▲ "Lectures on Finitely Generated Solvable Groups", Springer Briefs (Birkhäuser), November, 2012 (with M. Dean, K. Bencsath and M. Zyman).
- ▲ "Toward Quantum-Ensured Privacy and Voting", Physical Review A 84, (2011) (with Vladimir Bužek, Mark Hillery and Mario Ziman).
- ▲ "Quantum Algorithms for Fixed Points and Invariant Subgroups", Groups, Complexity, Cryptology, Volume 3, Issue 2 (2011) (with S Majewicz).

Professor Bonanome presented the following:

- ⤴ "IA-Automorphisms of Groups with Almost Constant Upper Central Series", MAA MetroNY 2012 meeting at BMCC, CUNY on May 5th, 2012.
- ⤴ "IA-Automorphisms of Groups with Almost Constant Upper Central Series", City Tech Sixth Annual Research Conference on March 30th, 2012.
- ⤴ "IA-Automorphisms of Groups with Almost Constant Upper Central Series", poster presented at the New York Women in Mathematics and Computer Science Conference on March 3rd, 2012.
- ⤴ "Improving Undergraduate Learning Outcomes in Mathematics", City Tech Department of Applied Mathematics and Computer Science on December 15th, 2011.

Corina Calinescu was awarded the Anne Coffin Hanson Research Grant from Yale University in 2011. She was also awarded a Travel Grant from Yale University in 2012. She presented the following:

- ⤴ "Vertex-algebraic structure of representations of affine Lie algebras", Algebraic and Combinatorial Approaches to Representation Theory, University of California Riverside, May 18-20, 2012.
- ⤴ "Vertex-algebraic structure of representations of affine Lie algebras", Lie Groups/Quantum Mathematics Seminar, Rutgers University, December 9, 2011.
- ⤴ "Vertex-algebraic structure of representations of affine Lie algebras", CUNY Representation Theory Seminar, CUNY Graduate Center, December 2, 2011.

Andrew Douglas published the following papers:

- ⤴ "The simple non-Lie Malcev algebra as a Lie-Yamaguti algebra", Journal of Algebra, 328, pp. 269-291 (2012) (with M. R. Bremner).
- ⤴ "A classification of the embeddings of the Diamond Lie algebra into $\mathfrak{sl}(3, \mathbb{C})$ and $\mathfrak{sp}(4, \mathbb{C})$, and restrictions of irreducible modules," Journal of Mathematical Physics, 52, 103507 (2011) (with W. Joseph and J. Repka).
- ⤴ "Embeddings of the Euclidean algebra $\mathfrak{e}(3)$ into $\mathfrak{sl}(4, \mathbb{C})$ and restriction of irreducible representations of $\mathfrak{sl}(4, \mathbb{C})$," Journal of Mathematical Physics, 52, 013504, (2011) (with J. Repka).
- ⤴ "Indecomposable representations of the Euclidean algebra $\mathfrak{e}(3)$ from irreducible representations of $\mathfrak{sl}(4, \mathbb{C})$," Bulletin of the Australian Mathematical Society, 83, 439-449 (2011) (with J. Repka).
- ⤴ "Indecomposable representations of the Euclidean algebra $\mathfrak{e}(3)$ from irreducible representations of the symplectic algebra $\mathfrak{sp}(4, \mathbb{C})$," Journal of Physics: Conf. Ser. 284, 012022 (2011) (with J. Repka).

Professor Douglas presented the following:

- ⤴ "Classifying embeddings of abelian extensions of D_n into E_{n+1} ", CUNY Representation Theory Seminar, CUNY Graduate Center, February 3, 2012.
- ⤴ "Abelian extensions of orthogonal Lie algebras in E_6 and E_8 ", American Mathematical Society-Mathematical Association of America National Joint Mathematics Meeting, Special session on Groups, Algorithms, Complexity, and Theory of Security, Boston, Massachusetts, January 5, 2012

Samar ElHitti was awarded a PSC-CUNY TRADA-43 Research award for 2012-2013 and a CUNY Scholar Incentive Award, February-July 2012. She gave the following presentations:

- ⤴ "Artin-Schreier defect extensions and strong monomialization", Eleventh Colloquium Fest, University of Saskatchewan, Saskatoon, Canada, February 4, 2012.
- ⤴ "Perron Transforms I", Algebra Seminar, University of Saskatchewan, Saskatoon, Canada, February 2, 2012.
- ⤴ "Perron Transforms II". Algebra Seminar, University of Saskatchewan, Saskatoon, Canada, January

26, 2012.

- ⤴ "Artin-Schreier defect extensions and strong monomialization", Commutative Algebra and Algebraic Geometry seminar CAAG, Graduate Center, CUNY, December 2, 2011.
- ⤴ "Improving undergraduate outcomes in mathematics" Math workshop, NYCCT, December 15, 2011.
- ⤴ "Being dependent seems to have nothing to do with failing strong monomialization", City Tech ninth annual poster session, NYCCT, November 17, 2011.

Laura Ghezzi published the paper

- ⤴ "Variation of the first Hilbert coefficients of parameters with a common integral closure", Journal of Pure and Applied Algebra 216 (2012), 216-232 (with S. Goto, J. Hong, K. Ozeki, T.T. Phuong and W.V. Vasconcelos).

Professor Ghezzi presented the following:

- ⤴ "Hilbert Polynomials in local rings", Forward to Professorship Poster Session, New York City College of Technology, March 3, 2012.
- ⤴ "Conjectures on Hilbert polynomials in local rings", City Tech Ninth Annual Poster Session for Faculty and Student Research, November 17, 2011.

Victoria Gitman was awarded a PSC-CUNY TRADB-43 research award for 2011-2012. She published the following papers:

- ⤴ "Ramsey-like cardinals", Journal of Symbolic Logic, vol. 76, no. 2 (2011).
- ⤴ "Inner models with large cardinal features usually obtained by forcing", Archive for Mathematical Logic, vol. 51, no. 3 (2012) (with A. Apter, J. D. Hamkins).
- ⤴ "A natural model of the multiverse", Notre Dame Journal of Formal Logic, vol.51, no. 4 (2010) (with J. D. Hamkins).
- ⤴ "Ramsey like cardinals II", Journal of Symbolic Logic, vol. 76, no. 2 (2011) (with P. D. Welch).

Professor Gitman presented the following:

- ⤴ "Models of ZFC that are not definable in their set forcing extensions", CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2012.
- ⤴ "Indestructibility for Ramsey cardinals", Rutgers Logic Seminar, Rutgers University, New Brunswick, 2012.
- ⤴ "An iPhone app for a nonstandard model of number theory?", C-LAC Seminar, CUNY New York City College of Technology, New York, 2012.
- ⤴ "Forcing and gaps in 2^ω ", CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2011.

Ezra Hallek published the paper

- ⤴ "Consider a Circular Cow", The College Mathematical Journal, p. 133 vol. 43, no. 2. (2012)

Professor Hallek presented the following:

- ⤴ "In the game of heads and tails, always ahead or finishing even: probabilities are the same". City Tech ninth annual poster session, NYCCT, November 17, 2011 (joint with his student).
- ⤴ "In the game of heads and tails, always ahead or finishing even: probabilities are the same". City Tech annual research conference in March, 2012.

Thomas Johnstone was awarded a PSC-CUNY TRADB-42 grant (\$3990). He presented the following:

- ⤴ "What is the ZFC set theory when the power set axiom is removed?," Set Theory Seminar, CUNY Graduate Center, Nov 2011.
- ⤴ "The Definability of the Ground Model in Forcing Extensions," Set Theory Seminar, CUNY Graduate Center, April 2012.
- ⤴ "Predictable and Systematic Mathematical Misconceptions," CUNY 2012 Mathematics Conference: Effective Instructional Strategies, John Jay College, New York, May 2012.
- ⤴ "Definability of the ground model in forcing extensions of ZF models", Set Theory Seminar, CUNY Graduate Center, Oct 2012.
- ⤴ "Preservation of DC delta by forcing with a closure point at delta", Set Theory Seminar, CUNY Graduate Center, Oct 2012.
- ⤴ "On Ground Model Definability", 10th Annual Poster Session of Faculty and Student Research, City Tech, (joint with Prof. Gitman), Nov 2012.

Delaram Kahrobaei was PI for an ONR Research Grant from the Office of Naval Research, (\$448,962.00), 2012-2015 (with V.Shpilrain). She was also PI for a grant from the American Association for the Advancement of Science (AAAS) (\$20,000), through a grant by the NSF, 2012-2013. She was PI for an NSF Grant (\$99,000—the total amount of the grant was \$398000 and was shared with NYU Polytechnic) 2011-2013. Professor Kahrobaei was Co-PI for a National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center Internal Research and Development (IRAD) grant in 2012. She was awarded a PSC-CUNY Traditional B Grant, (\$6,000) 2012-2013 and an NSF-FORWARD to Professorship Grant (\$15,000) 2011-2013. She published the following:

- ⤴ "On Residual Solvability of Generalized Free Products of Finitely Generated Nilpotent Groups", Communications in Algebra, vol. 39, 1-10 (2011).
- ⤴ "Residual Solvability of Generalized Free Products of Solvable Groups", Discrete Mathematics & Theoretical Computer Science, Vol 13, No 4, 45-50 (2012) (with S.Majewicz).
- ⤴ "On Growth Rate of an Endomorphism of a Group", Groups, Complexity, Cryptology, vol 3, Issue 2, 285-300 (2011) (with K. Falconer, B. Fine).
- ⤴ "Aspects of non-abelian group-based cryptography: A survey and open problems", JP Journal of Algebra and Number Theory Volume 21(1) 1-41 (2011) (with B. Fine, M. Habeeb, G. Rosenberger).
- ⤴ "Non-commutative digital signatures using non-commutative groups", Groups, Complexity, Cryptology, De Gruyter, Vol 4, Issue 2 (2012) (with C.Koupparis).
- ⤴ "Publicly Verifiable Secret Sharing Scheme for Non-Commutative Cryptography", Contemporary Mathematics, American Mathematical Society, Vol. 582, 175-180 (2012) (with E.Vidaurre).
- ⤴ "A Secret Sharing scheme based on group-presentation and word problem", Contemporary Mathematics, American Mathematical Society, Vol. 582, 143-150 (2012) (with M. Habeeb, V. Shpilrain).
- ⤴ "A cryptosystem secure against chosen cipher- text attack using matrices over group-rings", Groups, Complexity, Cryptology Vol. 5, Issue 1 (2013) (with C. Koupparis, V. Shpilrain).
- ⤴ "Finding n-th roots in nilpotent groups and applications in cryptography", International Journal of Pure and Applied Mathematics, Vol. 70, No. 4, 571-593 (2011) (with S. Sze, R. Dambreville, M. Dupas).
- ⤴ Edited Book: "Groups, Complexity, Cryptology", de Gruyter, Germany Vol. 3, Issue 1 (May 2011).
- ⤴ Edited book: "Computational and Combinatorial Group Theory and Cryptography", American Mathematical Society Contemporary Mathematics, 199 pp, Volume: 582 (2012) (with B. Fine, G. Rosenberger).

Professor Kahrobaei presented the following:

- ⤴ "Secret sharing schemes using Group Presentations", Geometric and Combinatorial Group Theory

Conference, Düsseldorf University, Germany, July 26 - August 4, 2012.

- ⤴ "Public key exchange using Matrices over group rings", Workshop on post-quantum cryptography in St. Petersburg, Russia, Russian Academy of Science, Steklov Institute, June 12-13, 2011.
- ⤴ "Secret Sharing Schemes Using Group Presentations", The 31st Ohio State-Denison, Mathematics Conference, Ohio State University, Columbus, May 25, 2012.
- ⤴ "New developments of applications of nonabelian group theory in modern cryptography", Zassenhaus Group Theory Conference, Towson University, Baltimore, May 27, 2011.
- ⤴ An invited conference talk at the American Mathematical Society Conference, University of Utah, Salt Lake City, Special session on Geometric, Combinatorial, and Computational Group Theory, October 22-23 2011.
- ⤴ An invited Conference Talk at the American Mathematical Society Meeting, University of Nebraska-Lincoln, Special Session on Algorithmic and Geometric Properties of Groups and Semigroups, October 14-16, 2011.
- ⤴ "Growth Rate of an endomorphism of a group", AWM Anniversary Conference at ICERM: "40 Years and Counting: AWM's Celebration of Women in Mathematics" Brown University, September 17-18, 2011.
- ⤴ An invited Seminar Talk University of California Berkeley, Number Theory Seminar, 2013.
- ⤴ "A decade of using non-commutative groups in cryptography", University of Toronto, GANITA seminar, July 12, 2011.
- ⤴ "Digital Signatures", CUNY Graduate Center, Algebra Cryptography seminar, April 20, 2012.

Neil Katz published the paper

- ⤴ "Three Quasi-Local Masses", *Modern Phys. Lett. A* 27 no. 7 (2012) (with M. Khuri).

Professor Katz presented the following:

- ⤴ "An analogue of integral lower Ricci curvature bounds for length measure spaces", Lehigh University Geometry and Topology Conference, May 25-27, 2012.
- ⤴ "A synthetic lower curvature bound on length measure spaces", Research Seminar, Department of Mathematics and Computer Science, Bronx Community College, March 6, 2012.
- ⤴ "A lower curvature bound from moduli of curves", Differential Geometry Seminar, CUNY Graduate Center, October 4, 2011.

Janet Liou-Mark was a Co-PI for an NSF Math Science Partnership - MSPinNYC2 (\$5,414,852), August 2011 – July 2014. She was also a Co-PI for an NSF REU – Research Experience for Undergraduates in Satellite and Ground-Based Remote Sensing at NOAA-CREST_2 (\$794,307), August 2011- July 2015. Professor Liou-Mark was a Senior Personnel for an NSF Opportunities for Enhancing Diversity in the Geosciences - Creating and Sustaining Diversity in the Geosciences among Students and Teachers in the Urban Coastal Environment on New York City (\$186,194), September 2011 – August 2013 and a PD for Tensor Foundation and Mathematics Association of America Women and Mathematics grant supported research project: Navigation by Mentoring and Leadership (NML): Spring 2011-2012 (\$12,000). She published the following:

- ⤴ "The companion for the first year at City Tech (3rd edition)" 2012, ISBN: 978-1-4507-2147-9 (with L. Aguirre, A.E. Dreyfuss, J. Sears).
- ⤴ "Experiencing the impossible: Designing virtual modules in the geosciences". In D. A. Willis (Ed.), *Proceedings of the Society for Information Technology and Teacher Education International Conference 2012*. Chesapeake, VA: AACE (with R. Lansiquot, R. Blake, B. Vant-Hull).
- ⤴ "Bridging pathways through mentoring for underrepresented students in STEM". *Proceedings of the 2011 Mentoring Conference*, Albuquerque, New Mexico, October 28, 2011 (with U. Ghosh-

Dastidar).

- ⤴ "Interdisciplinary Problem-Solving to Advance STEM Success for All Students". Peer Review, 13(3), 19-22, 2012 (with R.D. Lansiquot, R.A. Blake, A.E. Dreyfuss).

Professor Liou-Mark presented the following:

- ⤴ "Engaging Student in Using Peer Assisted Learning Workshops in Introductory Mathematics Courses". New York State Mathematics Association of Two-Year Colleges Annual Conference, Ellenville, New York, April 20-21, 2012.
- ⤴ "Retaining Women Undergraduates in Mathematics through the Navigation by Mentoring and Leadership Program". New York State Mathematics Association of Two-Year Colleges Annual Conference, Ellenville, New York, April 20-21, 2012.
- ⤴ "Enhancing Mathematics Learning: Peer Leaders and the Peer-Led Team Learning Project". Mathematical Association of America Metropolitan New York Section 2012 Annual Meeting, Borough of Manhattan Community College, New York, May 5, 2012.
- ⤴ "Creating Case Studies in Mathematics: An Internship Experience". Mathematical Association of America Metropolitan New York Section 2012 Annual Meeting, Borough of Manhattan Community College, New York, May 5, 2012.
- ⤴ "Expanding the Community of Women in STEM through the Navigation by Mentoring and Leadership Project". Mathematical Association of America Metropolitan New York Section 2012 Annual Meeting, Borough of Manhattan Community College, New York, May 5, 2012.
- ⤴ "Peer Assisted Learning at City Tech: An Overview". Peer-Led Team Learning International Society Inaugural Conference, New York City College of Technology, New York, May 17-19, 2012.
- ⤴ "Supporting the Community of Women in STEM through the Navigation by Mentoring and Peer Leadership Program". Peer-Led Team Learning International Society Inaugural Conference, New York City College of Technology, New York, May 17-19, 2012.

Ariane Masuda presented the following:

- ⤴ "Permutation polynomials over finite fields", City Tech Math Seminar Series, New York City College of Technology, May 17, 2012.
- ⤴ "Analogies between the ring of integers and the ring of polynomials over a finite field", Faculty Research Conference, New York City College of Technology, March 30, 2012.
- ⤴ "Analogies between \mathbb{Z} and $F_q[x]$ ", New York Women in Mathematics and Computing Workshop, Forward to Professorship, New York City College of Technology, March 3, 2012 (poster).

Sheila Miller was awarded a PSC-CUNY research award for 2012-2013. She published the following papers:

- ⤴ "Girls Doing Research: A Case Study in Fostering Success in Early Career Faculty". Mathematical Association of America's FOCUS magazine, August/ September 2012 Issue.
- ⤴ "Left Division in the Free Left Distributive Algebra on One Generator", Journal of Pure and Applied Algebra, Volume 215, Issue 33, March 2011, pages 276-282. (with Richard Laver).

Professor Miller presented the following:

- ⤴ "How Can Counting Be So Hard? Modeling the Dynamics of Sea Turtle Populations". Union College, Union College Research Seminar, Schenectady, NY, April 2012.
- ⤴ "Population Models for Long-lived, Migratory Sea Turtles." City University of New York, City Tech. Faculty Research Conference, Brooklyn, NY, March, 2012.

Hans Schoutens published the paper

- ⤴ "Classifying singularities up to analytic extensions of scalars is smooth", *Annals of Pure and Applied Logic* 162 (2011), 836-852.

Professor Schoutens presented the following:

- ⤴ "Classifying singularities up to analytic extensions", Regional AMS meeting, special session 'Singularities in Commutative Algebra and Algebraic Geometry' at Kansas Univ. Lawrence, KS, 2012.
- ⤴ "O-minimalism", Rutgers Logic Seminar, New Brunswick, NJ, 2012.
- ⤴ "Ordinal-valued invariants", CUNY Commutative Algebra and Algebraic Geometry Seminar, NY, 2012.
- ⤴ "Ultraproducts in algebra", Medgar Evers College Mathematics Colloquium, NY, 2011.
- ⤴ "The Grothendieck ring of a motivic site", *Théorie des nombres, géométrie algébrique et théorie des modèles*. Conference in honor of Jan Denef, Luminy, France, 2011.

Satyanand Singh was awarded a Perkins Grant 2010-2012. He published the following:

- ⤴ "Visualizing Calculus by way of Maple: An emphasis on Problem solving", Published by McGraw Hill Publishers, April 2011. (with A. Taraporevala and N.Benakli).
- ⤴ "A Fifth Way to Skin a Definite Integral", *College Mathematics Journal*, MAA, Volume 43, No 5 (2012).

Professor Singh presented the following:

- ⤴ "A proof of Fermat's last theorem", CityTech Mathematics Club, February 16th, 2012.
- ⤴ "Mathematical Explorations: A prelude to research", CityTech Mathematics Club, October 20th, 2011.
- ⤴ "Sums of powers of 2's and 3's", CUNY Graduate Center Number theory Seminar, January 18th, 2012.
- ⤴ "Certainty to Uncertainty", NYSMATYC 45th Annual Conference, April 20-22 2012, Honors Haven, Ellenville NY.
- ⤴ "Functions Rule", NYSMATYC Conference at Corning, NY, April, 2011.

Simon Smith was awarded a Discovery Early Career Researcher Award (\$312,000) by the Australian Research Council (2013–2016). He published the following papers:

- ⤴ "Distinguishability of infinite groups and graphs", *Elec. J. Combin.* 19(2) (2012), #P27 (with T. Tucker and M. Watkins).
- ⤴ "Rough ends of infinite primitive permutation groups", *J. Group Theory* 15 (2012) 279–289.

Professor Smith presented the following:

- ⤴ "Permutation groups with a finite regular suborbit", SUNY Binghamton, Binghamton, NY, February, 2012.
- ⤴ "Infinite primitive permutation groups whose set of subdegrees has a finite upper bound", Joint Mathematics Meeting, Boston, January, 2012.
- ⤴ "Determining the structure of infinite primitive permutation groups", New York Algebra Colloquium, CUNY Graduate Center, September, 2011.
- ⤴ "Orbit equivalence of infinite groups", Harlaxton Group Theory Conference, Harlaxton Manor, UK, August, 2011.
- ⤴ "Distinguishability of infinite graphs", The British Combinatorics Conference, Exeter University, UK, July, 2011.

Thomas Tradler was awarded a PSC CUNY TRADB-43 Research award for 2012-2013. He published the following papers:

- ⤴ "Equivariant holonomy for bundles and abelian gerbes," Commun. Math. Phys. 315 (2012) (with S. O. Wilson, M. Zeinalian).
- ⤴ "Homotopy DG Algebras Induce Homotopy BV Algebras," J. Homotopy Relat. Struct. 6 (2011) (with J. Terilla, S. O. Wilson).

Lin Zhou published the paper

- ⤴ "Multiple shear-banding transitions for a model of wormlike micellar solutions", SIAM, Journal of Applied Mathematics Vol. 72, No.4, (2012) (with P. Cook, G. McKinley).

Professor Zhou presented the following:

- ⤴ "Probing Shear-Banding Transitions of the Models for Entangled Wormlike Micellar Solutions Using LAOS Deformation" A Day of LAOS Symposium, University of Delaware, Newark, DE, January 13, 2012.
- ⤴ "Wormlike Micellar Solutions in Shear Deformation" City Tech Ninth Annual Poster Session for Faculty and Student Research, New York City College of Technology, November 17, 2011.
- ⤴ "Multiple Banding of the VCM Model for Wormlike Micelles Under Shear Deformations" Minisymposium, The Society of Rheology 83rd Annual Meeting, Cleveland, OH, October 9-13, 2011.

PHYSICS

Compiled by O. Berman, A. Ferroglia, and G. Ossola

This newsletter summarizes the achievements of the Physics Departments for the academic year 2011-2012. A number of activities have taken place within the Physics Department that contributed to the increasing research efforts within our College. City Tech students have been involved in this process in several ways, including participating in research projects as well as seminars.

Prof. Kezerashvili chaired the Ninth Annual Poster Session on November 17, 2011 for Faculty and Students. Many faculty members contributed a poster, in many cases in collaboration with students. Several faculty members contributed to the success of the **Sixth Annual City Tech Research Conference**. Profs. Berman, Ferroglia, Kolmakov, Leng, Ossola and Vazquez-Poritz presented talks in the Physics parallel session. Many faculty members participated and helped in the organization. Several students involved in research with Physics faculty also participated to the **Emerging Scholar Poster Presentation**.

A number of Research Grants were awarded to Physics Faculty. **PSC-CUNY** grants for 2011-2012 were awarded to Profs. Ferroglia, Kezerashvili, and Ossola. The **National Science Foundation** awarded two new Research Grants within the Physics Department, to Profs. Ferroglia and Ossola, in addition to the continuation of funding for the NSF award of Prof. Vazquez-Poritz.

The **City Tech Center for Theoretical Physics (CTP)**, established in the summer of 2010, completed its second year of activities. The CTP is a unified research and teaching center focused on fundamental physics. The primary mission of the CTP is to foster and promote excellence in theoretical physics research with significant focus on mathematical physics, computational physics, condensed matter physics, particle physics, nuclear physics, and astrophysics. The CTP also aims to educate undergraduate students in theoretical and computational physics and to communicate its activities to the general public through public lectures and other outreach activities. The CTP provides a seminar series, supports collaborative research between members of the CTP and other academic institutions worldwide, supports graduate and undergraduate students' research.

Many guests have been invited to visit our college for research collaborations with our faculty and to present seminars within the **Joint Math and Physics Colloquium** and the **Physics Seminar in Theoretical Physics**: among them Alessandro Broggio (Mainz University), Simon Eidelmann (Budker Institute of Nuclear Physics Novosibirsk) Thomas Becher (Bern University), Edoardo Mirabella (MPI, Munich), Paolo Gambino (Universita' di Torino), David Schmeltzer (City College of CUNY), Alexander Lisiansky (Queens College of CUNY), Joseph L. Birman (City College of CUNY), Igor Bondarev (North Carolina Central University), Aron Pinczuk (Columbia University), Klaus Ziegler (University of Augsburg, Augsburg, Germany), Tim Byrnes (National Institute of Informatics, Tokyo, Japan), Fabio Governato (University of Washington), Darya Krym (Katholieke Universiteit Leuven, Belgium), Sera Cremonini (University of Cambridge, Texas A&M University), Robert Wimmer (Stony Brook SUNY, Ecole Normale Supérieure de Lyon, France), Stefano Actis (Paul Scherrer Institut, Villigen Switzerland), Chih-Hao Fu (Zhejiang University, China), Dejan Stojkovic (SUNY at Buffalo). The seminar series has been coordinated by Profs. Berman and Vazquez-Poritz.

Numerous research papers have been published by the Physics faculty in prestigious peer-reviewed journals such as Physical Review, Physics Letters, Advances in Space Research, Nanotechnology, Philosophical Transactions of Royal Society, Acta Astronautica, Solid State Communications, Journal of High Energy Physics. In addition, our faculty gave presentations on major national and international conferences worldwide: their contributions appeared on the conference Proceedings. The Physics faculty also made numerous presentations at the college and university level and given invited talks at colloquia and seminars at various institutions. Several members of the Physics faculty have been reviewers for prestigious peer-reviewed journals such as Physical Review, Physical Review Letters, Advances in Space Research, Physics Letters, Applied Physics, Journal of High Energy Physics.

Individual Faculty Research Activity

Oleg Berman published the following papers

- ⤴ O. L. Berman, R.Ya. Kezerashvili, G.V. Kolmakov, and Yu. E. Lozovik, "Turbulence in a Bose-Einstein condensate of dipolar excitons in coupled quantum wells", Physical Review B 86, 045108 (2012).
- ⤴ O. L. Berman, R.Ya. Kezerashvili, and K. Ziegler, "Superfluidity of dipole excitons in the presence of band gaps in two-layer graphene", Physical Review B 85, 035418 (2012).
- ⤴ O. L. Berman and R. Ya. Kezerashvili, "Graphene-based one-dimensional photonic crystal", J. Phys.: Condens. Matter 24, 015305 (2012).
- ⤴ A. Gothandaraman, S. Sadatian, M. Faryniarz, O. L. Berman, and G. V. Kolmakov, "Application of Graphics Processing Units (GPUs) to the Study of Non-Linear Dynamics of the Exciton Bose-Einstein Condensate in a Semiconductor Quantum Well", IEEE Trans., Proceedings of the 2011 Symposium on application of
- ⤴ accelerators in high-performance computing, 68-71 (2011).
- ⤴ O. L. Berman, R.Ya. Kezerashvili, and G. V. Kolmakov, "Introduction to Nonlinear Phenomena in Superfluid Liquids and Bose-Einstein Condensates: Helium, Semiconductors and Graphene", Contemporary Physics 52, 319-340 (2011).
- ⤴ O. L. Berman and R. Ya. Kezerashvili, "Restricted Three Body Problem in Semiconductor Heterostructure", Few-Body Syst. 50, 407-411, 2011.

Prof. Berman gave the following presentations:

- ⤴ "Superfluidity of Dipolar Excitons in in Two Layers of Gapped Graphene", 31st International Conference on the Physics of Semiconductors (ICPS 2012), July 29-August 3, 2012, Zurich, Switzerland
- ⤴ "Graphene-based photonic crystals and localization of electromagnetic waves", Graphene Week 2012, June 4-8, 2012, Delft, Netherlands
- ⤴ "Graphene-based photonic crystals", APS March Meeting (Condensed Matter section), February 27-March 2 2012; Boston, Massachusetts
- ⤴ "Bose-Einstein condensation of microcavity polaritons and drag effects", Fundamental Optical Processes in Semiconductors (FOPS 2011), Lake Junaluska, North Carolina, USA, August 01-05, 2011

Vladimir Boyko published the paper

- ⤴ Vladimir S. Boyko, Roman Ya. Kezerashvili, "Twinning in nanocrystalline materials", Phys. Lett. A, Vol. 376, pp. 1058 -- 1061 (2012).

Andrea Ferroglia received an NSF Research Grant, September 2011 – August 2014: *Top-Quark Pair Production Beyond NLO*, and a PSC CUNY Grant, July 2011 – June 2012: *Two Loop Corrections To Top Quark Pair Production*

Prof. Ferroglia published the following papers:

- ⤴ A. Ferroglia, B.D. Pecjak and L.L. Yang, Soft-gluon resummation for boosted top-quark production at hadron colliders, Phys. Rev. D86, (2012) 034010.
- ⤴ R. Bonciani and A. Ferroglia, Top-quark production at hadron colliders, PoS EPS-HEP2011, (2011) 341.
- ⤴ V. Ahrens, M. Neubert, B. D. Pecjak, A. Ferroglia and L. L. Yang, Soft gluon resummation in t anti-t production at hadron colliders, PoS EPS-HEP2011, (2011) 349.
- ⤴ V. Ahrens, A. Ferroglia, M. Neubert, B. D. Pecjak, L. L. Yang, The top-pair forward-backward asymmetry beyond NLO, Phys. Rev. D 84 (2011) 074004.

Prof. Ferroglia gave a presentation on

- ⤴ September 28-October 2, 2012 CKM 2012, Cincinnati, USA; "Forward Backward and charge asymmetries in the Standard Model".

Boris Gelman published the paper:

- ⤴ T.D. Cohen and B.A. Gelman, "Total nucleon-nucleon cross sections in large Nc QCD", Physical Review C 85, 024001 (2012).

Prof. Gelman gave the following presentations:

- ⤴ "Nucleon-Nucleon Scattering and Large Nc QCD", Xth Quark Confinement and Hadron Spectrum, Invited Talk, October 8 - October 12, 2012, Technical University of Munich, Garching, Germany.
- ⤴ "Nucleon-Nucleon Scattering and Large Nc QCD", The 19th Particle and Nuclei International Conference, July 24-July 29, 2011, Massachusetts Institute of Technology, Cambridge, MA.

Lufeng Leng published the paper

- ⤴ L.Leng, T. Le, and B. Zhu, "Investigation on Raman Pump wavelength allocation in a GPON reach extender," in Proceedings of the 17th OptoElectronics and Communications Conference (OECC 2012), Busan, South Korea, July 2-6, 2012, Paper SC1_1066.

Prof. Leng presented:

- ⤴ "Investigation on Raman Pump wavelength allocation in a GPON reach extender," Conference (OECC 2012), Busan, South Korea, July 2-6, 2012.

Roman Kezerashvili received a PSC CUNY Grant, July 2011 – June 2012: *One- And Two-Dimensional Graphene-Based Photonic Crystals*.

Prof. Kezerashvili published the following papers:

- ⤴ O. L. Berman, R.Ya. Kezerashvili, G.V. Kolmakov, and Yu. E. Lozovik, "Turbulence in a Bose-Einstein condensate of dipolar excitons in coupled quantum wells", *Physical Review B* 86, 045108 (2012).
- ⤴ O. L. Berman, R.Ya. Kezerashvili, and K. Ziegler, "Superfluidity of dipole excitons in the presence of band gaps in two-layer graphene", *Physical Review B* 85, 035418 (2012).
- ⤴ O. L. Berman and R. Ya. Kezerashvili, "Graphene-based one-dimensional photonic crystal", *J. Phys.: Condens. Matter* 24, 015305 (2012).
- ⤴ O. L. Berman, R.Ya. Kezerashvili, and G. V. Kolmakov, "Introduction to Nonlinear Phenomena in Superfluid Liquids and Bose-Einstein Condensates: Helium, Semiconductors and Graphene", *Contemporary Physics* 52, 319–340 (2011).
- ⤴ O. L. Berman and R. Ya. Kezerashvili, "Restricted Three Body Problem in Semiconductor Heterostructure", *Few-Body Syst.* 50, 407–411, 2011.
- ⤴ Vladimir S. Boyko, Roman Ya. Kezerashvili, "Twinning in nanocrystalline materials", *Phys. Lett. A*, Vol. 376, pp. 1058 -- 1061 (2012).
- ⤴ R. Ya. Kezerashvili, "Teaching RC and RL circuits using computer-supported experiments", *IERI Procedia* 2, 609-615 (2012) .
- ⤴ R. Ya. Kezerashvili, "Solar Sailing: Concepts, Technology, and Missions", *Advances in Space Research*, 48, 1683–1686 (2011).

Presentations:

- ⤴ O. L. Berman, R. Ya. Kezerashvili, and K. Ziegler, Formation of excitons in graphene as a two-body problem, 20th International Conference on Few Body Problem in Physics, August 20-25, 2012, Fukuoka, Japan
- ⤴ R. Ya. Kezerashvili, Sh. Tsiklauri, Biexciton and Triexciton States in Quantum Dots, 20th International Conference on Few Body Problem in Physics, August 20-25, 2012, Fukuoka, Japan
- ⤴ R. Ya. Kezerashvili, Teaching RC and RL circuits using computer-supported experiments, International Conference on Future Computer Supported Education, August 22-23, 2012, Seoul, Korea Link to presentation information.
- ⤴ R. Ya. Kezerashvili, Symposium: the 60th anniversary of Prof. G. Ya. Kezerashvili, Budker Institute of Nuclear Physics, June 15, 2012, Novosibirsk, Russia
- ⤴ O. L. Berman, R. Ya. Kezerashvili, K. Ziegler, Superfluidity of dipole excitons in two layers of gapped graphene, 31st International Conference on the Physics of Semiconductors ICPS 2012, July 29-August 3, 2012, Zurich, Switzerland
- ⤴ G. V. Kolmakov, O. L. Berman, R. Ya. Kezerashvili, Yu. E. Lozovik, Formation and decay of a Bose-Einstein condensate of trapped dipole excitons, APS March Meeting, February 27–March 2 2012; Boston, Massachusetts.

German Kolmakov published the papers

- ⤴ O. L. Berman, R.Ya. Kezerashvili, G.V. Kolmakov, and Yu. E. Lozovik, "Turbulence in a Bose-Einstein condensate of dipolar excitons in coupled quantum wells", *Physical Review B* 86, 045108 (2012).
- ⤴ A. Gothandaraman, S. Sاداتian, M. Faryniarz, O. L. Berman, and G. V. Kolmakov, "Application of Graphics Processing Units (GPUs) to the Study of Non-
- ⤴ Linear Dynamics of the Exciton Bose-Einstein Condensate in a Semiconductor
- ⤴ Quantum Well", *IEEE Trans., Proceedings of the 2011 Symposium on application of accelerators in high-performance computing*, 68-71 (2011).

Prof. Kolmakov gave the following presentation:

- ⤴ APS March Meeting (Condensed Matter section), February 27–March 2 2012; Boston, Massachusetts “Formation and decay of a Bose-Einstein condensate of trapped dipole excitons”

Gregory Matloff published the papers

- ⤴ Matloff, G. L., “Olaf Stapledon and conscious stars: Philosophy or science,” (invited commentary), JBIS, Vol. 65, 4-5 (2012). Presented by K. Long for G. Matloff at BIS Stapledon Symposium, London, UK, 11/11
- ⤴ Matloff, G. L., and Wilga, M., “NEOs as stepping stones to Mars and Main-Belt Asteroids,” Acta Astronautica, Vol. 68, 599-602 (2011). Presented at 6th IAA Symposium on Relistic Near-Term Advanced Scientific Space Missions, Aosta, Italy, 7/09.
- ⤴ Matloff G. L., “ Fusion Starships” and “Antimatter Starships,” (Popular book chapters) in Going Interstellar, eds. L. Johnson & J. McDevitt, Baen, Riverdale, NY (2012).

Prof. Matloff gave the following presentations:

- ⤴ “Interstellar light sails.” Presented at 100YSS, Orlando FL, 9/11 and Tennessee Valley Interstellar Workshop, Knoxville, TN 11/11
- ⤴ “Deflecting Earth-threatening asteroids using the Solar Collector: An improved model,” Presented at 7th IAA Symposium on Realistic, Near-Term Advanced Scientific Space Missions, Aosta, Italy, 7/11.

Giovanni Ossola received an NSF Research Grant, October 2011 – September 2014: *Automated Computation Of One-Loop Scattering Amplitudes* and a PSC CUNY Grant, July 2011 – June 2012: *Calculation Of One-Loop Scattering Amplitudes With Samurai*. He published the following papers

- ⤴ N. Greiner, G. Heinrich, P. Mastrolia, G. Ossola, T. Reiter, F. Tramontano “NLO QCD corrections to the production of $W^+ W^-$ plus two jets”, Phys.Lett. B713 (2012) 277-283.
- ⤴ G. Cullen, N. Greiner, G. Heinrich, G. Luisoni, P. Mastrolia, G. Ossola, T. Reiter, F. Tramontano, “Automated One-Loop Calculations with GoSam”, Eur.Phys.J. C72, 1889 (2012)
- ⤴ P. Mastrolia and G. Ossola, “On the Integrand-Reduction Method for Two- Loop Scattering Amplitudes,” JHEP 1111, 014 (2011)
- ⤴ G. Cullen, N. Greiner, G. Heinrich, G. Luisoni, P. Mastrolia, G. Ossola, T. Reiter, F. Tramontano, “Automation of One-Loop Calculations with GoSam: Present Status and Future Outlook”, Acta Phys. Polon. B 42, 2351 (2011)

Prof. Ossola gave the following presentations:

- ⤴ “GoSam: a program for Automated One-Loop Calculations”, LoopFest XI, Radiative Corrections for the LHC and beyond, University of Pittsburgh, May 10-12, 2012
- ⤴ “Scattering Amplitudes at the Integrand Level”, invited talk at Amplitudes 2012, DESY Hamburg, March 5-9, 2012.
- ⤴ “Automation of One-Loop Calculations with Golem/Samurai”, Ustron, Poland, XXXV Int. Conference of Theoretical Physics, “Matter to the Deepest 2011

Justin Vazquez-Poritz received an NSF Research Grant, July 2010 – June 2013: *Constraining Gravity Dual Models Of Strongly Coupled Plasmas*. He published the following papers

- ⤴ H. Lu, Y. Pang, C.N. Pope and J.F. Vazquez-Poritz, “AdS and Lifshitz black holes in conformal and Einstein-Weyl gravities”, Physical Review D86 (2012) 044011.
- ⤴ MD R. Islam and J.F. Vazquez-Poritz, “Strongly-coupled quarks and colorful black holes in

AdS/CFT", Physical Review D85 (2012) 126001.

- ⤴ J.F. Vazquez-Poritz, "Black five-branes and fluxbranes on gravitational instantons", Physical Review D85 (2012) 125024.
- ⤴ R. Ya. Kezerashvili and J.F. Vazquez-Poritz, "Drag force on solar sails due to absorption of solar radiation", Advances in Space Research 48 (2011) 1778-1784.

Prof. Vazquez-Poritz gave the following presentation:

- ⤴ "Strongly-coupled quarks and colorful black holes", Meeting of the Division of Particles and Fields of the American Physical Society, Brown University, Providence RI, August 9-13 2011.

SOCIAL SCIENCE FACULTY LECTURE SERIES

Organized by Professors Laureen Park, Costas Panayotakis and Howard Sisco, the Social Science Faculty Lecture Series continues to provide a regular forum for the full-time professors in the department to give a talk on past, present and/or future research while at the same time receiving feedback, support and encouragement from their peers about their work. The following faculty presented during the 2011/2012 academic year:

- ✦ Prof. Marco Castillo presented “A Discussion of the 2012 U.S. Presidential Election – Obama vs. Romney”
- ✦ Prof. Pa Her presented “Family Socialization and Individual Processes associated with Teenage Marriage among Hmong American Women”
- ✦ Prof. Ed Kaplan presented “Keynes, the Great Depression, and Today’s Economy”
- ✦ Prof. Sean MacDonald presented “The Economic Dimensions of the Foreclosure Crisis”
- ✦ Prof. Fred Nalven presented “Has Psychology Lost Its Mind”
- ✦ Prof. Costas Panayotakis presented “Economic Crisis in the Euro-Zone”
- ✦ Prof. Peter Parides presented “Legacies of the Atomic Bomb: Past, Present, Future”

SOCIAL SCIENCE FACULTY BOOKS

- ✦ Park, L. (2012). *Arche and Telos: Freud and Hegel on instincts, sublimation, culture and spirit*. Saarbrücken, Germany: Lambert Academic Publishing.

SOCIAL SCIENCE FACULTY PUBLICATIONS

- ✦ Assimacopoulos S., Kao T., Issa N. P., & Grove E. A. (2012). Fibroblast growth factor 8 organizes the neocortical area map and regulates sensory map topography. *Journal of Neuroscience*, 32(21), 191-201
- ✦ Capruso, D. X., & Hamsher, K. deS. (2012). Retrograde memory in cerebrovascular disease and Alzheimers’s disease. *Journal of Stroke and Cerebrovascular Diseases*, 21(4), 265-274.
- ✦ Doviak, Eric and MacDonald, Sean, “Who Defaults on their Home Mortgage?” *New York Economic Review*. vol. 43, 75-98, Fall 2012.
- ✦ Doviak, Eric and MacDonald, Sean. "Who Enters the Foreclosure Process?" *Proceedings of the New York State Economics Association*. vol. 4. Fall 2011, 20-35.
- ✦ Doviak, Eric and MacDonald, Sean. "Who Defaults on their Home Mortgage?" *Proceedings of the New York State Economics Association*. vol. 4, Fall 2011, 36-61.
- ✦ Gerardi, S. (2012). Social change, historical modes-of-production and the tendency toward capital concentration. *Sociology Mind/Scientific Research*, 2(3), 247-250.
- ✦ Gerardi, S. (2012). The Dialectical Relationship between Religion and the Ideology of Science. *Sociology Mind/Scientific Research*, 2(1), 50-52.
- ✦ Hannum, R. (2011). Ostrom, Elinor. In Craig W. Allin’s (Ed.), *Encyclopedia of Environmental Issues*. Pasadena, CA: Salem.

- ⤴ Hannum, R. (2011). Alan Greenspan: Economist and Federal Reserve Chairman (1987-2006). In Rafael Medoff's (Ed.), *Great Lives from History: Jewish Americans*. Pasadena, CA: Salem.
- ⤴ Hannum, R. (2011). Recession of 1937-1938. In Thomas Tandy Lewis' (Ed.), *The Thirties in America*. Pasadena, CA: Salem.
- ⤴ Hannum, R. (2011). Henry Clay Frick: An American industrialist, entrepreneur, and art patron. In Howard Bromberg's (Ed.), *Great Lives from History: The Incredibly Wealthy*. Pasadena, CA: Salem.
- ⤴ Her, P., Dunsmore, J., & Stelter, R. L. (2012). Parents' Beliefs about Emotions and Children's Self-construals in African American, European American, and Lumbee American Indian Families, *Global Studies of Childhood*, 2(2), 129-143.
- ⤴ Kao T, Shumsky JS, Knudsen EB, Murray M, & Moxon KA. (2011). Functional role of exercise-induced cortical organization of sensorimotor cortex after spinal transection. *Journal of Neurophysiology*, 106(5), 2662-2674
- ⤴ MacDonald, Sean, Sodeinde, Olufemi, and Zameer, Andleeb. Theories in practice: A focus on STEM at City Tech. In R. D. Lansiquot (Ed.) *Cases on interdisciplinary research trends in science, technology, engineering, and mathematics: Studies on urban classrooms*. New York: IGI Global, Fall 2012. (A-18-1,2)
- ⤴ Moxon K. A., Kao T, & Shumsky, J. S. (2012). Role of cortical reorganization on the effect of 5-HT pharmacotherapy for spinal cord injury. *Experimental Neurology* (E-publication).
- ⤴ Parides, P. K. (2012). The Halban affair and British atomic diplomacy at the end of World War II. *Diplomacy & Statecraft*, 23(4), 619-635.
- ⤴ Rodriguez, E. M. & Follins, L. D. (2012). Did God make me this way? Expanding psychological research on queer religiosity and spirituality to include intersex and transgender individuals. *Psychology & Sexuality*, 3(3), 214-225.

SOCIAL SCIENCE FACULTY PRESENTATIONS

- ⤴ Albrecht, V., Kubeck, J. E., & Lyon, J. (2012, June 6-9). Life after Roper and Graham - Life Without Parole for Juvenile Offenders. Paper presented at the Tenth Biennial International Conference co-sponsored by John Jay College of Criminal Justice: Global Perspectives on Justice, Security and Human Rights, New York City, United States.
- ⤴ Doviak, E. and MacDonald, Sean, "Who Defaults?" and "Who Goes into Foreclosure?" Conference of the Eastern Economic Association, Boston, Ma. , Mar. 11-13, 2012.
- ⤴ Grove, E. A., Assimacopoulos, T., Kao, T., & Issa, N. P. (2012, October). Fibroblast Growth Factor 8 organizes the neocortical area map and regulates sensory map topography. Paper presented at the Annual Society for Neuroscience Meeting, New Orleans, Louisiana.
- ⤴ Kubeck, J. E., Her, P., Neroulis, K., & Abdulghani, H. (2012, April 23-25). Emotional Stress, Meaning-making, and Well-being. Poster presented at the International IOSSBR (International Organization of Social Sciences and Behavioral Research) Conference, Atlantic City, NJ.
- ⤴ Kubeck, J. E., Albrecht, V., & Lyon, J. (2012, May 24-27). Children in Penal Systems Worldwide: The Moderating Influence of Literacy and Constitutional Authority. Poster presented at the Annual Convention of the Association for Psychological Science (APS), Chicago, IL.
- ⤴ Kubeck, J. E., Albrecht, V., & Lyon, J. (2012, July 22-27). Factors that Influence Children's Treatment in Penal Systems: An International Comparison. Poster presented at the 30th International Congress of Psychology, Cape Town, South Africa.
- ⤴ Kubeck, J. E., & Rodriguez, E. M. (2012, May). What to write... The nuts and bolts of successful IRB applications. Faculty Commons Workshop, New York City College of Technology, Brooklyn, NY.
- ⤴ MacDonald, Sean, "Economic Dimensions of the Foreclosure Crisis," (submission to the Faculty and Student Research and Faculty Publications Exhibit (New York City College of Technology).

- 10th Annual Poster Session, City Tech, Brooklyn, New York, November 2012.
- ⤴ MacDonald, Sean, "Economic Dimensions of the Foreclosure Crisis," presented at the Social Science Lecture Series, Department of Social Science, October, 2012.
 - ⤴ MacDonald, Sean, "Who Enters the Foreclosure Process?" In E. Rodriguez (Chair), Social Science and Humanities, paper presented at the Faculty Research Conference, New York City College of Technology – CUNY, Brooklyn, New York, March 2012.
 - ⤴ MacDonald, Sean, "The U.S. Banking and Financial Crisis of 2008: Causes and Consequences"; Invited talk and presentation to Introduction to Sociology and English classes, New York City College of Technology, Brooklyn, New York. Presentation in Dr. Camille Goodison's English class (October 2011) was taped; The presentation was also given in Dr. Annie Mundeke's Introduction to Sociology class in Dec. 2011.
 - ⤴ MacDonald, Sean, "Who Enters the Foreclosure Process?" In Faculty and Student Research and Faculty Publications Exhibit (New York City College of Technology). Poster presented at the 9th Annual Poster Session, City Tech, Brooklyn, New York, Nov. 17, 2011.
 - ⤴ MacDonald, Sean, "Subprime Mortgage Lending in Traditionally Underserved Communities in New York State: A Look at Home Mortgage Disclosure Act Data: 2004- 2008," In E. Rodriguez (Chair), Social Science and Humanities, paper presented at the Faculty Research Conference, New York City College of Technology – CUNY, Brooklyn, New York, March 2011.
 - ⤴ MacDonald, Sean and Doviak, Eric, "The Economic Landscape of the Foreclosure Crisis", 65th Annual Conference of the New York State Economics Association, Fall 2012 (Served as Chair of Session on Regional Economics; served as a paper discussant).
 - ⤴ Nalven, F. (2012, April). Has psychology lost its mind? Paper presented at the International IOSSBR (International Organization of Social Sciences and Behavioral Research) Conference, Atlantic City, NJ.
 - ⤴ Rodriguez, E. M. (2012, November). Linking peer leadership with social cognition: Key concepts and potential implications. Invited lecture presented to the City Tech Student Peer Leaders, New York City College of Technology (City Tech, CUNY), Brooklyn, NY.
 - ⤴ Rodriguez, E. M. (2012, October). Religious conservatism meets clinical psychology: Issues for patients and therapists. Invited lecture presented to pre-doctoral psychology interns and externs at the Kings County Hospital Center, Brooklyn, NY.
 - ⤴ Rodriguez, E. M. (2012, April). Whistling Vivaldi: How stereotypes affect us and what we can do by Claude Steele. Moderated this Faculty Commons Workshop for the Undergraduate Research Committee at the New York City College of Technology, Brooklyn, NY.
 - ⤴ Rodriguez, E. M. (2012, March). Micro-level Congregational Analysis as Community Collaboration Research: An Update on the Trinity Lutheran Church Strategic Planning Project. Paper presented at the sixth annual City Tech Faculty Research Conference, New York City College of Technology, Brooklyn, NY.
 - ⤴ Rodriguez, E. M. (2012, January). Religious conservatism and the patient/therapist relationship: Issues for clinical psychologists. Invited lecture presented to pre-doctoral psychology interns and externs at Kings County Hospital Center, Brooklyn, NY.
 - ⤴ Rodriguez, E. M. (2012, January). Religion and spirituality in the LGBTQI community. Invited lecture presented during Psychiatric Grand Rounds at North Central Bronx Hospital, Bronx, NY.

Barlow, Aaron and Robert Leston

Book: *Beyond the Blogosphere: Information and Its Children*. Praeger/ABC-Clio, 2012.

Do, Anna H.-J.

Book: *Building Bridges: A Thematic Approach to College Reading and Writing*. Dubuque: Kendall Hunt, 2012.

Feder, Jane

Book: *The GPS for Writing: Grammar, Punctuation, and Sentence Structure*. Kendall Hunt, 2012.

Ferrell, Monique and Julian Williams, eds.

Book: *Lead, Follow, or Move Out of The Way: Global Perspectives in Literature and Film*. Dubuque: Kendall Hunt, 2012.

Guida, George organized and hosted the Italian American Studies Association Conference in Tampa, Florida, in October of 2011, and co-organized the 2012 conference at Hofstra University. He served as Poetry Editor of *2 Bridges Review*. Released Issue #1 in 2011 and #2 in 2012.

Book: *The Pope Stories and Other Tales of Troubled Times*. New York: Bordighera Press, 2012.

Creative Writing:

- ♣ "Life in the New World" (reprinted poem), *The Place Where We Dwell: Reading and Writing about New York City*. 3rd Ed. Dubuque: Kendall/Hunt, 2012: 375-378.
- ♣ "The True Virtuoso Spirit" and "The National Association of Peasants (NAP) President's Message" (poems), *VIA* 23.1 (2012): 10-11.
- ♣ "The Eighty-Foot Oak," "Hulks" and "Salmon," *Poems of Eco-Logic*, PoetsUSA, 2012 <poetsusa.com>.
- ♣ "A Coyote is Not a Wolf," *The Literary Gazette* (2012): 16.
- ♣ "Tremor" (poem) and "Lunch Lady" (reprinted poem), *Nucleus* 3.4 (June 2012): 6.
- ♣ "Pirates and Parrots" (poem), *Rhyme and PUN-ishment: Comedic Verse*. Eds. Nick Hale and James P. Wagner. Northport: Local Gems Poetry Press, 2012. 63-65
- ♣ "Imperative" (poem), *Maintenant: A Journal of Contemporary Dada Writing and Art* 6 (2012): 92.
- ♣ "He Davens" (revised reprinted poem),
- ♣ "Manhattan-Bound F" (revised reprinted poem),
- ♣ "The Poem I Forgot" (poem), *Token Entry: Poems of the New York Subway*. Ed. Gerry LaFemina.

New York: Smalls Books, 2012. 60-64

- ♣ "I'm Still Banging Your Sister," and "Misbehavior" (poems), forthcoming in *Writing Outside the Lines: An Anthology of Poetry from the Wrong Side of the Tracks*. North Sea, New York: Wild Side Press, 2012: 162-163, 235-236.
- ♣ "If You Want a Friend, Get an Italian," *Italian American Writers Blog* (April 2012), <http://italianamericanwritersassoc.wordpress.com/2012/04/24/if-you-want-a-friend-get-an-italian-by-george-guida/>
- ♣ "Assessment" [Vella Poetry Prize Honorable Mention] and "Uncle" (poem), *Paper Nautilus* (2011): 4-5, 33.

Critical Writing:

- ♣ "Mafia Movies: A Reading List" (review essay), forthcoming in *The Journal of Italian Cinema and Media Studies* 1.1 (2012): 114-119.
- ♣ "Introduction," *Writing Outside the Lines: An Anthology of Poetry from the Wrong Side of the Tracks*. Patchogue: Wyld Syde Press, 2012: 23-24.
- ♣ Foreword to *Humorous Happenings While Traveling in Italy*. Rochester: Winston Press, 2011: xiii-iv.
- ♣ "Only the Zen Know Brooklyn: The Poet/Parent Wisdom of Diane di Prima," *The Paterson Literary Review* 39 (2011-2012): 58-67.

Gold, Matthew K., eds.

Book: *Debates in the Digital Humanities*. Minneapolis: University of Minnesota Press, 2012.

Leston, Robert coauthored, with Aaron Barlow, *Beyond the Blogosphere: Information and Its Children* (Praeger, 2012) an investigation into the cultural impact the internet is having on daily life. He was the lead author in an invited piece "The Chora of the Twin Towers" in the peer-reviewed journal *Enculturation: A Journal of Rhetoric, Writing, and Culture* (with Geof Carter and Sarah Arroyo). He presented scholarship at four conferences, including two international conferences (Modern Language Association, Deleuze Studies International Conference) and two national conferences (Rhetoric Society of America, Computers and Composition). He has two peer-reviewed articles forthcoming in 2013.

Ostrom, Robert

Book: *The Youngest Butcher in Illinois*. YesYes Books, 2012.

Ostrom, Robert and Caroline Hellman

Book: *CATskills: Mastering the CUNY CATW and College Writing*. Kendall Hunt, 2012

Saddik, Annette has almost completed her new book, "The Strange, The Crazy, The Queer": Tennessee Williams' Late Plays and the Theatre of Excess, and Cambridge UP is interested in the manuscript.

Essays:

- ⤴ "John Patrick Shanley." Invited essay (7000 words) in *The Methuen Drama Guide to Contemporary American Playwrights*. Ed. Martin Middeke and Matthew C. Roudané. London: Methuen, forthcoming Dec 2012.
- ⤴ "Sex, Lies, and Independent Film: Realism and Reality in Sam Shepard's *Fool for Love*." In *Modern American Drama on Screen*, ed. Robert Bray and Barton Palmer. Cambridge, MA: Cambridge University Press, forthcoming Dec 2012.
- ⤴ "'The Muted Warning of a River': The Clash between Nature and Culture in *Kingdom of Earth*." Invited essay for the programme of Artscape's production of Tennessee Williams' *Kingdom of Earth* (opening December 2012). Cape Town, South Africa.
- ⤴ "'Drowned in Rabelaisian Laughter': Germans as Grotesque Comic Figures in the Plays of Tennessee Williams." *Modern Drama* 55.3 (Fall 2012).
- ⤴ Invited essay (in Turkish) on Williams' *The Glass Menagerie* for the program of the 2011-2012 production in Ankara, Turkey, at Ankara Devlet Tiyatrosu. The production is currently running and expected to run until 2014.
- ⤴ Contributor to *The Literary Encyclopedia* (2500-3000 word entry on Tennessee Williams' *The Night of the Iguana*). London: The Literary Dictionary Company, Ltd. Published 06 January 2012. [<http://www.litencyc.com>]
- ⤴ "'Too Grotesque and Too Funny for Laughter': Publishing the Late Tennessee Williams." In *Tenn at One Hundred*, ed. David Kaplan. East Brunswick, NJ: Hansen Publishing Group, 2011.

Presentations:

- ⤴ September 20-23, 2012: Provincetown Tennessee Williams Festival. Provincetown, MA. Invited series of lectures/seminars for selected doctoral students on Williams' post-1961 plays and critical theory (focusing on Bakhtin, Kristeva, Grand Guignol, the gothic, the grotesque).
- ⤴ March 23, 2012: Tennessee Williams New Orleans/Literary Festival. New Orleans, LA. "Teaching Tennessee:Williams in the Classroom." Invited panel discussion.
- ⤴ March 24, 2012: Tennessee Williams New Orleans/Literary Festival. "Tennessee Williams: Genontologist?" Invited panel discussion.
- ⤴ December 3, 2011: International Tennessee Williams Centennial Conference: Embracing the Island of His Self. Universidad de Extremadura. Cáceres, Spain. Invited Roundtable Participant, "New Directions in Teaching and Scholarship in Tennessee Williams Studies.
- ⤴ December 1, 2011: International Tennessee Williams Centennial Conference: Embracing the Island of His Self. Universidad de Extremadura. Cáceres, Spain. Invited Keynote Lecture: "The Strange, The Crazy, The Queer: Tennessee Williams' Late Plays and the Theater of Excess."
- ⤴ November 1, 2011: CUNY Graduate Center, Martin Segal Theatre. New York, NY. Invited to participate in a panel discussion on Portuguese playwright Armando Nascimento Rosa's new play, *Dr. Feelgood*.
- ⤴ September 18, 2011: White Horse Theatre Company, New York, NY. Production of Tennessee Williams' *Suddenly Last Summer*. I was invited to be interviewed for a post-show panel discussion with David Savran and Thomas Keith.
- ⤴ August 28, 2011: Westport Playhouse. Westport, CT. Production of Tennessee Williams' *Suddenly Last Summer* (directed by David Kennedy). I was invited to be the featured speaker for a post-show discussion [was postponed for Hurricane Irene]

Scanlan, Sean, Juanita But and Mark Noonan.

Book: *The Place Where We Dwell: Reading and Writing About New York City*. 3rd edition, Kendall Hunt, 2012

The Schomburg Center for Research in Black Culture is one of the world's finest repositories for Africana studies. During the 2011-2012 academic year, AFR faculty used institutions like the Schomburg in Harlem to shape the AFR research initiative called *Mapping New York City*. This initiative was designed to further expose students enrolled in AFR courses to the valuable archival materials and programming at Africana research institutions in New York City. For Black Solidarity Day 2011, AFR explored *Empowering Black America: Continuing the Legacy of Arturo Schomburg*. On November 7, 2011, Dr. Khalil Gibran Muhammad, the new director of the Schomburg was formally introduced to the CityTech community. Dr. Muhammad's lecture was entitled *Historical Literacy in the 21st Century: Arturo Alfonso Schomburg's Legacy, Then and Now*. For its Annual Black History Month (BHM) events in February 2012, AFR examined *Black Migrations*. Retired CUNY professor Dr. Jo-Ann Graham presented her research "The Great Migration: Agent of Change" during the BHM keynote lecture. Dr. Graham explored how *the Great Migration of American Blacks from the South in the early 20th century changed the nation, changed the individuals and changed the roles of American Blacks in the US*. Dr. Graham's lecture was made possible through *Speakers in the Humanities*, a program of the New York Council for the Humanities.

On March 29, 2012, AFR held its first annual Spring Colloquium, which is designed to highlight the research projects of AFR faculty. Long-time faculty member Dr. Steve Panford presented his ongoing project entitled *Still False Start in Africa* in Faculty Commons.

Individual Faculty Research Activity

Marta Effinger-Crichlow presented the following:

- ▲ "Writing the Kings into Contemporary Black Theatre: Katori Hall's *The Mountaintop* and Pearl Cleage's *A Song for Coretta*," Black Theatre Network 26th Annual Conference, Atlanta, Georgia, July 27-30, 2012.
- ▲ "Victoria Earle Matthews: The Discourse and Fight for African American Women's Emancipation," Ninth Annual CityTech Poster Session, New York City College of Technology - CUNY, Brooklyn, New York, November 17, 2011.

Marta Effinger-Crichlow moderated the following:

- ▲ *The Help*: A Film Discussion, Benefit for A Brooklyn Family Place, Brooklyn, New York, February 2012.

Karl Botchway published the following:

- ▲ Karl Botchway and Jamee Moudud, "Neo-Liberalism and the Developmental State: Consideration for the New Partnership for African Development" in Benjamin Bobo and Herman Sintim-Aboagye (edited), *Neo-Liberalism, Interventionism and the Developmental State: Implementing the New Partnership for Africa's Development*. Africa World Press, NJ, 2012.

Diane Wilson moderated the following:

- ✦ “Music, the Arts and Capacity Building,” – *Gender, Science Technology and Socio-Economic Development: Africa and the Diaspora*, 36th Annual Conference for the New York African Studies Association, SUNY-Oneonta, NY, March 2012.

Steve Panford researched the following:

- ✦ Curriculum Development by Sociology, Political Science, and History faculty, University of Ghana, Accra, Summer 2012.
- ✦

AFR Adjunct Faculty

Annie Ngana Mundeke published the following:

- ✦ *Short African Folktales*. Ronkonkoma, NY: Linus Publications, 2012.

Annie Mundeke presented the following:

- ✦ “Reaching Out to the Community and Giving Back to the Community to Contribute to Education” and “The Impacts of Hurricane Irene,” The 72nd Annual Meeting for The Society of Applied Anthropology, Baltimore City, MD, March 27-31, 2012.

Monica Williams directed the following:

- ✦ *Poetry Grand Slam 2012*, Brooklyn Academy of Music (BAM), Brooklyn, NY, March 9-10, 2012.

ACKNOWLEDGEMENTS

Arts & Science Research and Grants Committee

Hans Schoutens: Chair
Alexander Rozenblyum
Andrea Ferrogli
Andrew Douglas
Ann Delilkan
Anna Do
Annette Saddik
Davida Smyth
Delaram Kahrobaei
Eric Rodriguez
Giovanni Ossola
Laura Ghezzi
Maria Flaherty
Marta Effinger-Crichlow
Oleg Berman
Simon Smith
Thomas Tradler
Tony Nicolas
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