

CURRICULUM VITAE

Dr. Paul Bruce Corkum

Nationality: Canadian

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Education

Ph.D. (Physics) 1972, Lehigh University, Bethlehem, PA, U.S.A.

M.S. (Physics) 1967, Lehigh University, Bethlehem, PA, U.S.A.

B.Sc. (Physics) 1965, Acadia University, Wolfville, N.S., Canada

Employment:

2008-present	Canada Research Chair, University of Ottawa
1975 - 2008	Scientist, National Research Council of Canada
1973 - 1975	Postdoctoral Fellow, National Research Council of Canada
1972 - 1973	Instructor, Lehigh University, Bethlehem, PA, USA
1965 - 1972	Graduate Student, Lehigh University, Bethlehem, PA, USA

Major Scientific Honours:

Schneider Medal, National Research Council Canada, 2017
Royal Medal, Royal Society, 2017
Foreign member of the Russian Academy of Sciences, 2016
M.V. Lomonosov Gold Medal, Russian Academy of Sciences, 2015
Thomson Reuters Citation Laureate, 2015
Harvey Prize, The Technion – Israel Institute of Technology, 2013
King Faisal International Prize for Science (Physics), 2013
Foreign member of the Austrian Academy of Sciences, 2012
Fellow of Optical Society of America, 2010
Foreign member of US Academy of Sciences, 2009
Officer of the Order of Canada, 2007
Fellow of the American Physical Society, 2007
Fellow of the Royal Society (of London), 2005
Fellow of the Institute of Physics, 2002

Fellow of the Royal Society of Canada, 1996

Other Academic Honours:

Honorary PhD from Aarhus University, 2016
Honorary PhD from Université de Sherbrooke, 2015
Honorary PhD from the Université Laval, 2015
Frederic Ives Medal, OSA, 2014
Order of Ontario, 2013
Royal Photographic Society Progress Medal and Honorary Fellowship, 2013
ORION Leadership Award, Ontario Research and Innovation Optical Network, 2013
Diamond Jubilee Medal, Her Majesty Queen Elizabeth II, 2012
University of Ottawa Award for Excellence in Research, 2011
Zewail Award, the American Chemical Society, 2010
Gerhard Herzberg Gold Medal for Science and Engineering, NSERC, 2009
Honorary PhD from the University of Western Ontario, 2009
Premier's Discovery Award, Ontario, 2009
John C. Polanyi Award, NSERC, 2007
The Killam Prize for Physical Sciences, Canada Council of the Arts, 2006
Honorary PhD from Acadia University, 2006
Arthur L. Schawlow Award for Laser Science, American Physical Society, 2006
Charles Townes Award, Optical Society of America, 2005
Quantum Electronics Award, IEEE, 2005
Golden Jubilee Medal, Her Majesty Queen Elizabeth II, 2003
Henry Marshall Tory Medal, the Royal Society of Canada, 2003
LEOS Distinguished Lecturer Award, IEEE, 2001 and 2002
Einstein Award, the Society for Optical and Quantum Electronics, 1999
Gold Medal for Lifetime Achievement in Physics, Canadian Association of Physicists, 1996

Scholarly and Professional Academic Activities:

2015-present	Distinguished Professor, University of Ottawa
2013	Chair, NSERC Joint Prizes Selection Committee Competitions
2012-present	Adjunct Research Professor, University of New Mexico, USA
2011-present	Editor of J. Phys. B. Atomic, Molecular and Optical Physics
2009-present	Director, Attosecond Science, Security and Disruptive Technologies, National Research Council of Canada
2006-present	Adjunct Professor of Physics, Texas A and M University, USA
2003-2013	Adjunct Professor of Physics, University of Ottawa
2001-2009	Adjunct Professor of Physics, University of British Columbia
1997-2009	Adjunct Professor of Physics, McMaster University

Summary of scientific accomplishments:

- 312 papers in peer reviewed journals -- referenced an average of 70 times
 - 87-papers in *Physical Review Letters*
 - 8-papers in *Nature*
 - 5-papers in *Science*
 - 8-papers in *Nature Physics*
 - 5-papers in *Nature Photonics*
- Over 23 public, plenary or invited lectures per year.
- H index 76, (ISI Web of Knowledge data)
 - Total citations 26441
 - Yearly citations approximately 519
- Graduate Student supervision
 - First entering Ph. D. student -- 1994*
 - 10 completed PhD, 4 MSc
 - 6 Ph.D. and 2 M.Sc. in progress
- Postdoctoral fellow supervision:
 - First postdoctoral fellow -- 1984*
 - 45 completed
 - 5 in progress

Other Appointments:

Director, Attosecond Science, Steacie Institute for Molecular Science, NRC

Contributions to Scientific Infrastructure:

1. Member of the Killam Trusts' Impact Study Panel, 2017
2. Member of the RIKEN Center for Advanced Photonics Advisory Council, 2016
3. Member of European Research Council 2015-2016/ 2017-2018, "Advanced Grant Selection Panel"
4. Co-chair (2015) Attosecond Science Conference, Saint Sauveur, Quebec
5. Member of Program Selection Committee for the Linear Collider Laser Source (LCLS), 2014 –
6. Member of the National Research Council (US) Committee on Atomic, Molecular, and Optical Sciences 2014-
7. Member of the International Advisory Board for the EPSRC (2011-2016) "Attosecond Electron Dynamics in Molecular and Condensed Phase Matter Project"
8. Editor, Journal of Physics B, 2011 - 2016
9. Deputy Editor, Journal of Physics B, 2009-2011
10. Member 1996-2011 of the International Advisory Board of the Max Planck Institute

for Quantenoptik in Garching, Germany

11. Member of the advisory committee for the Institute for Quantum Computation in Waterloo, Ontario, Canada, 2010-2014
12. Chair of the International Advisory Board for the Photon Science Institute, University of Manchester, Manchester, UK.
13. Chair of the Internal Advisory Board, NSF Frontier Centre “FOCUS” 2006 and 2007.
14. Member of 2001 and 2013 advisory board for Advanced Synchrotron sources Brookhaven National Labs.
15. Member of the editorial advisory board of the International Journal of Nonlinear Optics
16. Member of the editorial board of Journal of Physics B, 2003-2009
17. Member of the NCE: Canadian Institute for Photonics Innovation and team leader for ultrafast dynamic imaging thrust 2000-2011
18. Executive committee members of the APS Division of Laser Science, 2003-2007.
19. Program Chair (1996) and General Chair (1998) of CLEO/International Quantum Electronics Conference.
20. Co-chair of 2 Canadian Workshops on femtosecond X-rays (2001-2002)
21. Program Chair (2001) and General Chair (2003) of the International Conference on Ultrafast Optics
22. Co-chair of 2003 and Chair 2005 Gordon conference on “control of light with matter and matter with light”
23. Co-chair of 2003 Dynamic Imaging Workshop (Sherbrooke PQ)
24. Co-chair of 2003 Harvard – ITAMP workshop on “attosecond science”, Nov 2003
25. Co-chair (2006) and General Chair (2008) of the Ultrafast Phenomena Conference.
26. Co-chair (2005) and General Chair (2008) of the International Conference on Multiphoton Processes
27. Co-chair of the 2007 and General Chair 2009; Attosecond Science Conference. 2007 was the founding conference for a new conference series.

Completed MSc and PhD's

- Dr. E. Constant, (PhD, Université de Sherbrooke), 1993-1996 “Champs Laser Intenses Ultracourts: Application a la Mesure et Création d’impulsions Attosecond et a l’imagerie de paquets d’ondes moléculaires par explosion Coulombienne.” --- He is employed by the CNRC in France.
- Dr. P. Dooley, (PhD, McMaster University), January 1998-2003 --- thesis topic: “Coulomb Explosion Imaging”. He is employed by the Department of National Defence, Ottawa, Ontario.
- Dr. F. Légaré, (PhD, Université de Sherbrooke), January 2001-2004 --- thesis topic: “Observing Chemical Dynamics with Few Cycle Pulses”. He is a professor of Physics at University of Québec’s INRS.
- Dr. Jerome Levesque, (PhD, Université de Québec, Institut national de la recherche scientifique (INRS), September 2002-2006/7 --- Thesis topic: “Orbital Tomography”. Currently research Scientist at Department of National Defence, Kingston, Ontario.
- Dr. Kevin Lee, (PhD, McMaster University), January 2002 – 2006/7--- Thesis topic:

“Producing and Controlling and Exploiting Molecular Wave Packets”. He is a research scientist with IMRA America.

- Justin Gagnon (MSc, University of Ottawa) May 2004 - 2006 --- Thesis Topic “Coulomb Explosion Imaging”. He is a Ph. D. student at the LMU University, Munich, Germany, 2012
- Dr. Marina Gertsvolf (PhD. University of Ottawa) Sept 2005-2009 --- Thesis Topic “The Physics of Dielectric Modification”. She is a research officer at NRC Department of Measurement Science and Standards, Ottawa, Ontario
- Chris Smeenck (MSc, University of Ottawa) January 2006-April 2009 --- Thesis Topic “Velocity Map Imaging”.
- Dr. Julien Bertrand (PhD. University of Ottawa) Sept 2009 - 2012--- Thesis Topic “Orbital tomography of molecules undergoing dynamics”
- Dr. Sarah Golin (PhD. University of Ottawa) Sept 2007 – 2012 --- Thesis Topic “Studies of Crystal Structure Using Multiphoton Transitions in GaAs”
- Dr. Christopher Smeenck (PhD. Ottawa University) March 2009-April 2013 – “Tunnel Ionization of Molecules”
- Genevieve Gariepy, (MSc., University of Ottawa) Sept 2011 – 2013 --- Thesis Topic “Conservation of Orbital Angular Momentum in High-harmonic Generation”
- Dr. Giulio Vampa (Ph.D, University of Ottawa) January 2011 – May 2016 “Attosecond Science”
- Martin Chiasson (MSc, University of Ottawa) Sept 2013 – May 2016 “Imaging Mass Spectrometry”

MSc and PhD's in progress:

- Xiaoyan Ding (Ph.D, University of Ottawa) Sept 2011 – “Single Molecule Imaging of NO₂”
- Mathew Britton (Ph.D, University of Ottawa) Sept 2013 – “Lasing in the Air”
- Fanqi Kong (Ph.D, University of Ottawa) Sept 2014 – “High Harmonic Beams with Controlled Orbital Angular Momentum”
- Graham Brown (Ph.D, University of Ottawa) Sept 2014 – “Focusing Attosecond Pulses”
- Kyle Johnston (Ph.D, University of Ottawa) June 2015 – “High Harmonics from Solids as they are Modified”
- Patrick Laferriere (MSc, University of Ottawa) January 2016 – “The Mechanism Responsible for N₂⁺ Laser”
- Alan Godfrey (MSc, University of Ottawa) September 2016 – “Super-resolution Mass Spectrometry”
- Guilmot Ernotte (Ph.D, University of Ottawa) September 2016 – “High Harmonics from Solids”

Completed PDF's and their present employment.

- Dr. C. Rolland, (1986-1989) present employment, Nortel Networks, Ottawa, Canada
- Dr. P. Dietrich, (1989-1992), research scientist, MacDonald Dettwiler and Associates, Brampton, Canada
- Dr. D. Strickland, (1989-1992), Professor of Physics, Waterloo University, Waterloo, Canada
- Dr. A. Stolow (1992-1996), Principal Research Officer, National Research Council of Canada, Ottawa, Canada
- Dr. M. Y. Ivanov, (1992-1996), Principal Research Officer, National Research Council of Canada, Ottawa, Canada
- Dr. M. Laberge, (1993-1994), Research Scientist, General Fusion Inc. Canada
- Dr. H. Stapelfeldt (1993-1995) Professor of Chemistry, Ahrus University, Denmark
- Dr. H. Sakai (1994-1995) Professor of Physics, University of Tokyo, Tokyo, Japan.
- Dr. E. Dupont (1994-1996), Research Officer, National Research Council of Canada, Ottawa, Canada
- Dr. C. Ellert, (1996-1999), OC Oerlikon Management AG, Pfäffikon, Germany
- Dr. Thomas Brabec (1996), Canada Research Chair, Department of Physics, University of Ottawa, Canada
- Dr. M. Mehendale (1998-2001) Research Scientist, Princeton University, USA.
- Dr. J.-P. Likforman, (1999-2000), CNRS, Strasbourg, France.
- Dr. R. Bhardwaj (1999-2002) Canada Research Chair, Department of Physics, University of Ottawa, Ottawa, Canada.
- Dr. H. Niikura (2000-2003) Employed by Japan Science and Technology and seconded to work at NRC, Canada.
- Dr. Fabien Quéré (2001-2002) Research Scientist in CEA, France.
- Dr. J. Fraser (2001-2002) Professor of Physics, Queens University, Kingston, Canada.
- Dr. Igor Litvinyuk (2001-2003) Professor of Physics, Kansas State University, Kansas, USA
- Dr. J. Itatani (2001-2005) Professor of Physics, University of Tokyo, Tokyo, Japan.
- Dr. Dirk Zeidler (2002 - 2005) Research Scientist at Zeiss Optics, Germany.
- Dr. Rajeev Pattatil (2004-2007) Research Scientist, Rutherford Appleton Labs, UK
- Dr. Domagoj Pavicic (2004-2007) Research Scientist at Novald, Dresden, Germany.
- Dr. Yann Mairesse (2005 - 2007) Research Scientist, CNRS, University of Bordeaux, France.
- Dr. Nirit Dudovich (2005 - 2007) Professor of Physics, Weizmann Institute, Israel.
- Dr. Andre Staudte (2005 - 2012) NRC research associate fellow working on re-collision physics, Ottawa, ON, Canada
- Dr. David Grojo (2007-2009) Research Scientist, CNRS, Marseille, France.
- Dr. Nathaniel Kajumba (2007 – 2010) Research associate, Max Planck, Institute for Quantum Optics, Munich, Germany.
- Dr. Avner Fleischer (2007 - 2010) Research associate, Israel Institute of Technology, Haifa, Israel.

- Dr. Hans Wörner (2007 - 2011) Professor of Physics, ETH Zurich, Switzerland
- Dr. Carlos Trallero (2007 - 2010) Professor of Physics, Kansas State University of Manhattan, US.
- Dr. Ladan Arisian (2008 - 2010) Staff Scientist, National Research Council Canada.
- Dr. Christoph Hebeisen (2008 - 2011) Rogers
- Dr. Evgeny Frumker (2008 - 2011) Marie Curie fellow, Max Planck Institute for Quantum Optics.
- Dr. Sean Kirkwood (2008 – 2012) Laser/X-Ray/Non-ionizing Compliance Specialist, University of Ottawa
- Dr. Kevin Lee (2010 - 2012) Research Scientist, IMRA America, Inc.
- Dr. Jiahui Peng (2010 – 2012) Professor, Huazhong University of Science and Technology, Wuhan, China
- Dr. Kyung Taec Kim (2010 – 2014) Assistant Professor of Physics, GIST, South Korea
- Dr. Laurent Mercadier (2011 - 2014) Post-Doctoral Fellow, Centre for Free-Electron Laser Science, Hamburg, Germany
- Dr. Marko Härtelt (2012 - 2015) Research Associate, Fraunhofer Institute for Applied Solid State Physics, Freiburg, Germany
- Dr. Sylvain Monchocé (2015 - 2016) France
- Dr. Dominik Geissler (2013 - 2016) Germany
- Dr. Giulio Vampa (2016) Stanford University, Post-Doctoral Fellow
- Dr. Chunmei Zhang (2012 - 2017) Lab Manager, University of Ottawa Extreme Photonics Laboratory
- Dr. Zhengyan Li (2014 - 2017) Professor, Huazhong University of Science and Technology, China
- Dr. Marco Taucer (2015 - 2017) Postdoc, National Research Council Canada, Ottawa

Current pdf's and their projects:

- Dr. T.J. Hammond (2012 -) Research Associate: “Attosecond streaking”
- Dr. Dong Hyuk Ko (2014 -) uOttawa pdf: “Attosecond measurement”
- Dr. Aleksey Korobenko (2016 -) uOttawa pdf: “Time delay associated with the Nonlinear Response of materials”
- Dr. Lakshmi Narayana Deepak Kallepalli (2017 -) uOttawa pdf: “Laser desorption of biological material using the LIFT method”
- Dr. Shawn Sederberg (2017 -) uOttawa pdf: “Driving currents in dielectrics”

Key Invited and plenary lectures:

2002:

1. **Plenary lecture:** 31-st Winter Colloquium on Physics of quantum Electronics

2. **Hascoe Lecture:** the University of Connecticut
3. **Special joint colloquium, Physics and Applied Physics:** Stanford University, USA
4. **Joint Physics/ITAMP Colloquium:** Harvard University, USA

2003:

1. **Plenary lecture:** Photonics North
2. **Review lecture:** International Conference on Photon, Electron and Atomic Collisions (ICPEAC)
3. **Plenary lecture:** Laser Physics (L'Phys)
4. **Review lecture:** APS Plasma Physics Meeting
5. **Invited lecture:** Fall meeting of the Atomic, Molecular and Optical section of the Dutch Physical Society.

2004:

1. **Keynote lecture:** High Power Laser Ablation Conference
2. **Tutorial lecture:** Conference on Lasers and Electron Optics (CLEO)
3. **Tutorial lecture:** APS Division of Atomic, Molecular and Optical Physics annual meeting (DAMOP)
4. **Distinguished NRC Lecturer to Taiwan**
5. **Scientific lecture:** 50th anniversary celebration of Nobel Prize to Max Born lecture

2005:

1. **Plenary talk:** International Conference on Coherent and Nonlinear Optics (ICONO)
2. **Plenary talk:** Canadian Association of Physicists Annual meeting
3. **Plenary talk:** Conference on Laser Ablation (COLA)
4. **Invited lecture:** Einstein Symposium of the German Physical Society
5. **Invited talk:** American Association for the Advancement of Science Annual Meeting

2006:

1. **Plenary Talk:** IUPAC conference on Photochemistry, Kyoto, Japan.
2. **Plenary Talk:** Austin Symposium on Molecular Structure, Austin, TX, USA
3. **Plenary Talk:** IEEE Lasers and Electron Optical society (LEOS) Annual Meeting, Montreal PQ.
4. **Plenary Talk:** FAO/OSA Annual Meeting Rochester, NY.

2007:

1. **Clapp Lecture:** Brown University, Providence R.I. USA
2. **Public Lecture:** Annual conference of APS' Division of Atomic, Molecular and Optical Physics Calgary, Canada
3. **Plenary Lecture:** Royal Society Conference on Atoms, Photons and Q-bits, London, UK
4. **Plenary Lecture:** 15th International Conference on Vacuum Ultraviolet Radiation Physics, Berlin, Germany.

2008:

1. **Plenary Lecture:** Spring Meeting of the German Physical Society, Darmstadt, Germany
2. **Welsh Lecture:** University of Toronto, Toronto, ON
3. **3-M Lecture Series:** Department of Chemistry, University of Western Ontario,
4. **Plenary Lecture:** Photonics North, Montreal, Québec.

2009:

1. **Hermann Haus Lecture,** Massachusetts Institute of Technology (MIT), Cambridge, USA
2. **Special 50th Anniversary Lecture,** DESY, Hamburg, Germany
3. **Special Lecture celebrating 100th anniversary of science in Adlershof**, Berlin, Germany
4. **Plenary Lecture,** International Conference on Atom and Photon Collisions, Michigan, USA
5. **Plenary Lecture,** CLEO Pacific Rim, Shanghai, China.

2010:

1. **Plenary Lecture:** SPIE Photonics West, San Francisco, USA
2. **Zewail Lecture:** 239th ACS National Meeting, San Francisco, USA
3. **Public Lecture:** VUVX 2010, Vancouver, Canada
4. **Opening Plenary Lecture :** Pacifichem 2010, Honolulu, Hawaii

2011:

1. **Keynote Address:** 75th Annual Meeting German Physical Society, Dresden, Germany.
2. **Joint Physics/ITAMP Colloquium,** Harvard University, USA
3. **Plenary Lecture:** Bunsen-Meeting 2011, Annual Physical Chemistry Meeting, Berlin, Germany
4. **Public Lecture:** POSTECH, Pohang, Korea,
5. **J.D. Lawson Lecture:** Rutherford Appleton Laboratory, Oxford, UK

2012:

1. **RB Woodward Lecture:** Harvard University, Cambridge, USA
2. **Invited Lecture:** 500th WE Heraeus-Seminar, Bad Honnef, Germany
3. **Plenary Lecture:** Frontiers in Optics, Rochester, NY, USA
4. **William A. Chupka Lecture:** Yale University, New Haven, USA
5. **MPL Distinguished Lecturer Series:** Max Planck Institute, Erlangen, Germany

2013:

1. **Keynote Lecture:** Centre for Free-Electron Laser Science, Hamburg, Germany.
2. **Plenary Lecture:** CLEO, San Francisco, Ca, USA
3. **Keynote Lecture:** International Conference on Coherent and Nonlinear Optics, Moscow, Russia
4. **Plenary Lecture:** International Conference on Quantum, Atomic, Molecular and

Plasma Physics, Swansea, UK

5. **Quantum Distinguished Lecture:** Institute for Quantum Computation, Waterloo, ON, Canada

2014:

1. **Introductory Lecture:** Gordon Research Conference on Multiphoton Processes, Massachusetts, USA
2. **Ives Medal Address:** Frontiers in Optics, Tuscon, USA
3. **Plenary Lecture:** Workshop for Swiss Light Source, Zurich, Switzerland
4. **Plenary Lecture:** Australian Institute of Physics meeting, Canberra, Australia

2015:

1. **Distinguished Speaker Colloquium:** Princeton University, Princeton, NJ, USA
2. **Guptill Lecture:** Dalhousie University, Halifax, NS
3. **Plenary Lecture:** CERF 15, Rostock, Germany

2016:

1. **Plenary Lecture:** CAP Congress 2016, Ottawa, ON
2. **Plenary Lecture:** IVNC 2016, Vancouver, BC
3. **Innsbruck Annual Physics Lecture:** University of Innsbruck, Innsbruck, Austria
4. **Annual Quantum Lecture:** Institute of Quantum Science and Technology, Calgary, AB

2017:

List of Public, Plenary and Invited Talks for 2001 - 2017 – TOTAL 340:

Oral Presentations (2001)

1. Institute of National Measurement Standards, Canada, January 17 **Seminar to Optical Standards Group** “*Attosecond Measurement*”
2. Zenastra, January 30, **Seminar** “*using strong fields for writing waveguides in bulk SiO₂*”
3. Ottawa Chapter of LEOS, January 31, Seminar, “*From Femtoseconds To Attoseconds, From Coulomb Explosions to Writing Waveguides*”
4. Special Lecture to HiTi, Ottawa, February 12, “*Photonics- Opportunity and Challenge*”
5. University of Calgary, February 26, **Physics colloquium**, “*Spinning Molecules until they Break*”
6. University of Lethbridge, February 27, **Physics colloquium** “*Spinning Molecules until they Break*”
7. University of Alberta, February 28, **Physics colloquium** “*Spinning Molecules until they Break*”
8. 5th RIKEN International conference, Shanon village, Japan, April 19-26, **Invited Talk**, “*Coherent control of Molecular Processes*”

9. Kansas State University, Manhattan, Kansas, May 1,
 - **Atomic physics Seminar, “Strong Field Double Ionization of H₂”**
 - **Physics colloquium, “Spinning Molecules until they break”**
10. American Physical Division of Atomic, Molecular and Optical Physics, London, Ont. May , **Invited Talk** “*Attosecond Pulse Measurement*”
11. Cross Border Workshop, Toronto, Ont. May, **Invited Talk**, “*Attosecond Science*”
12. Atomic Physics Gordon Conference, Williamstown, MA, June 17-22 **Invited Talk**, “*Attosecond Pulse Measurement*”
13. Coherent Control Gordon conference, Mount Holyoke, MA. July 29-Aug. 3, **Introductory lecture**, “*Strong field Control*”
14. ACS meeting, Chicago, Ill, August 26-31, **Invited Talk**, “*Molecules in Strong fields*”
15. International Symposium on Ultrafast Intense Laser Science, Québec, PQ, Oct . 4-6, **Invited Talk** “*Attosecond Science*”
16. International Laser Science Conference, Long Beach, Ca. Oct 14-18, **Invited Talk**, “*Attosecond Science*”
17. Queens University, Nov 7, **Physics Colloquium**, “*Attosecond Science*”
18. University of Sherbrooke, Sherbrooke, P.Q. Nov 23 **Chemistry colloquium** “*Attosecond dynamics of H₂*”
19. University of Kaiserslautern, Kaiserslautern, Germany, Dec. 7, **Physics colloquium**, “*Attosecond Science*”
20. 2nd International Workshop on Optimal Control of Quantum Dynamics, Ringberg, Germany Dec 9-11, **Invited Talk**, “*Strong Field Control of Molecules*”
21. Ludwig-Maximilians-Universität München, Munich, Germany, Dec. 12 **Physics colloquium**, “*Producing, Measuring and applying Attosecond Electron and Photon Pulses*”
22. I-st Canadian Russian Photonics Workshop, Québec, Canada, December 2001(**invited**), “*Asking a Molecule to measure its own structure*”

Oral Presentations (2002)

23. 31-st Winter Colloquium on Physics of quantum Electronics, Jan 7-11, Snowbird. Utah, **Plenary paper** “*High current electron micro-bunches for molecular probing*”
24. SPIE Photonics West, Jan 21-23, **Invited paper**, “*Dielectric modification*”
25. Hascoe Lecture at the University of Connecticut, February 25, **Seminar** “*Strong Field Molecular Optics*”.
26. APS March meeting, Indianapolis, Indiana, March 18-22, **Invited Paper**, “*Sub-femtosecond dynamics in D₂⁺*”
27. Toronto Chapter of LEOS, April 5, **Seminar**, “*From Femtoseconds To Attoseconds, From Coulomb Explosions to Writing Waveguides*”
28. Stanford University, Palo alto, USA, **Special Joint colloquium, Physics and Applied Physics**, April 16, “*Sub-femtosecond dynamics in D₂⁺*”

29. Workshop on New Opportunities in Ultrafast Science using X-rays, April 15-17, Napa, California, **Invited Talk** "*High current density, attosecond electrons for Molecular Probing*"
30. Boulder Colorado Chapter of LEOS, April 18, **Seminar**, "*From Femtoseconds To Attoseconds, From Coulomb Explosions to Writing Waveguides*"
31. Ultrafast Phenomena, Vancouver, B.C. May 13-17, **Contributed talk**, "*Attosecond Measurement*"
32. University of British Columbia, Vancouver, B.C. May 15, **Physics Colloquium**, "*Attosecond electron pulses for probing molecular dynamics*"
33. Joint session between Conference on Lasers and Electro-Optic systems and Quantum electronics and Laser Science, Long Beach, California, May 20-24, **Invited Talk**, "*Attosecond measurement*"
34. Cross Border workshop, Rochester, N.Y. May 24-26, **Tutorial presentation**, "*Attosecond Measurement*"
35. CIPI Annual Meeting, Québec May 30-31, **Plenary talk**, "*From Femtoseconds to Attoseconds*"
36. Multiphoton Gordon conference, Tilton, N.H. June 30-July 5 **Invited talk**, "*Attosecond Science*", 2002

Oral Presentations (2003)

37. Joint PRO-MMO workshop on micromachining, Toronto, Ont., March 5, **Invited Talk**, "Femtosecond laser machining".
38. University of Strathclyde, Glasgow, Scotland, March 26, **LEOS lecture** "From Femtoseconds to Attoseconds"
39. Imperial College, London, England, March 28. **Physics Colloquium** "Attosecond Science"
40. Photonics North, Montreal, Ont. May 25-28, **Plenary talk** "Femtosecond Dielectric Modification"
41. Cross Border Workshop **Plenary Lecture**, May 29-31, "Attosecond Science"
42. Ultrafast Optics, Vienna, Austria, June 29-July 4, **invited talk at special symposium for Professor Arnold Schmitt**. "Attosecond Science".
43. ICPEAC, Stockholm Sweden, July 23-26, **Tutorial talk**, "Attosecond Science"
44. L'phys Plenary lecture, Hamburg, Germany, Aug 25-31, **Plenary talk** "Attosecond Science"
45. University of Toronto Sept 11, **Physics Colloquium**, "Attosecond Science"
46. Gordon Conference, Oxford, England, Sept 21-26, **Introductory Invited Lecture**, "Attosecond Science"
47. International workshop in High Intensity Physics, Québec PQ. Sept 27-29 **Invited lecture**, "Attosecond Science".
48. APS plasma physics annual meeting, Albuquerque, NM. Oct 26-29 **Invited Talk**, "Plasma physics at the atomic and molecular level"
49. Physics Colloquium, NYU, Stony Brook, **Physics Colloquium** Nov 4 "Attosecond Science"

50. Dutch Physical Society, Division of Atomic, Molecular and Optical, Lunteren, Holland, Nov 13-14, **Invited Lecture**, "Attosecond Science"
51. University of Tennessee, Knoxville, Tenn. Dec. 1 and 2., **Physics colloquium** "Attosecond Science"
52. Ugo Fano Memorial Symposium, Boston, July 24-26, **Invited talk**, "Attosecond Science" 2002.
53. McGill University, Montreal, Canada, **Physics Colloquium**, "Attosecond Science", Sept 20
54. International Conference on Multiphoton Processes, Crete, Greece, **Invited talk**, "*Attosecond Electrons*", Oct 18-23
55. ETH, Zurich, Switzerland, Oct 28, **Laser Seminar**, "Attosecond Science".
56. Material Research Society fall meeting, Boston, Special Attosecond Symposium, Dec 2-6, **invited talk**: "Attosecond Science".
57. Harvard University, Boston, USA, **Joint Physics/ITAMP Colloquium**, Dec 18, "Attosecond Science".

Oral Presentations (2004)

58. University of Pittsburgh, Pittsburgh, Pa. February 23, **Physics Colloquium**, "Attoseconds science and technology"
59. ACS Annual meeting, Anaheim, Ca. March 28-April 1, **Invited Talk** "Molecular Imaging"
60. Final meeting of the European Attosecond Network, Ringburg, Germany, April 4-8, **Invited talk** "Attosecond Imaging"
61. Cross Border Workshop **Plenary Lecture**, May 29-31, "Attosecond Science"
62. Institute of Atomic and Molecular Sciences, **Seminar** April 19 " Attosecond Science and Technology"
63. First Taiwan meeting on Ultrafast Science, Taipei, Taiwan **Invited lecture** April 21 "Strong Field Molecular Optics"
64. Tsing-hua University and Chiao-Tung University Hsin-chu, Taiwan **Joint seminar** April 23 "Attosecond Science and Technology"
65. Conference on Lasers and Electro-Optics (CLEO), San Francisco, Ca. May 17-21, **Tutorial** "Attosecond Science and Technology"
66. Joint APS CAP annual meeting of the Division of Atomic, Molecular and Optical Physics (DAMOP), **Special Tutorial** "Attosecond Science and Technology"
67. University of Niigata, Niigata, Japan, July 24, **Special colloquium**, "Attosecond Science and Technology"
68. Ultrafast Phenomena, Niigata, Japan, July 26-30, **Invited talk**, "Attosecond Imaging"
69. International Physical Chemistry Colloquium on Ultrafast and intense-field phenomena, Sendai Japan August 1-2, **Invited talk** "Attosecond Science and Technology"
70. Argonne National Lab, Chicago, Ill, Sept 10, **Physics colloquium** "Attosecond Science and Technology"

71. University of California at Berkley, Berkeley, Ca November 1 **Physics colloquium**, "Attosecond Science and Technology"
72. California Institute of Technology, Los Angeles, Ca. **Physical Chemistry Seminar**, November 4 "Attosecond Science and Technology"
73. University of California, Los Angeles, California November 8 **Physical Chemistry Seminar**, "Attosecond Science and Technology"
74. University of California, Irvine, California November 9 **Physical Chemistry Seminar**, "Attosecond Science and Technology"
75. Max Born Nobel Anniversary celebration, Max Born Institute, Berlin, Germany Dec 10 **Plenary Scientific Lecture**, "Attosecond Imaging: Asking a molecule to paint a self portrait"

Oral Presentations (2005)

76. Physics of quantum Electronics, Snow Bird, Utah, Jan 3-6, **Plenary Talk**, "Attosecond Imaging".
77. High Field Attosecond Physics conference, Obergurgl, Austria, Jan 10-14, **Invited talk**, "All Tunnels are Alike"
78. American Association for the Advancement of Science Annual Meeting, Washington D.C. Feb 17-18, **Invited Talk** "Molecular Imaging".
79. German Physical Society meeting, Einstein Symposium, Berlin, Germany, March 4-9 **Invited Talk** "Attosecond Imaging"
80. Fritz Haber Institute, Berlin, Germany, March 2 **Colloquium**, "Controlling Molecules via the Non-resonant Laser Induced Dipole Force"
81. Max Born Institute, Berlin, Germany, March 3 **Colloquium**, "Controlling Molecules via the Non-resonant Laser Induced Dipole Force"
82. University of Windsor, Windsor, Ontario, March 15, **CAP Lecture**, "Attosecond Science"
83. University of Western Ontario, London, Ontario, March 16 **CAP Lecture**, "Attosecond Science".
84. University of Calgary, Calgary, Canada, April 8, **Physics Colloquium**, "Attosecond Imaging"
85. Harvard Attosecond Workshop, Boston Mass, May 1-3, **Invited Talk**, "Attosecond Science"
86. Imperial College, London, U.K. May 9, **Physics Seminar**, "Attosecond Science and Technology"
87. International Conference on Coherent and Nonlinear Optics, St Petersburg, Russia, May 11, **Plenary Lecture**, "Attosecond Science and Technology"
88. Canadian Society for Chemistry, Saskatoon, Canada, May 28-31, **Invited Lecture**, "Using Re-collision Electrons to Image Molecular Structure"
89. Canadian Association of Physics Meeting, Vancouver, Canada, June 5-8, **Plenary Lecture**, "Attosecond Science"
90. Femtochemistry 7 conference, Washington DC, July 18-22, **Invited Lecture**, "Attosecond Imaging"

91. COLA, Banff, Alberta, September 11-16, **Plenary Lecture**, "Modification of fused silica using femtosecond multiphoton ionization"
92. J. Phys B Board meeting, London, England, October 27-28, **Invited lecture**, "Attosecond and Strong field science"
93. University of Guelph, Guelph, Ontario, Canada, October 25, **Physics Colloquium**, "Attosecond Imaging -- Asking a Molecule to Paint a self-portrait"
94. University of Waterloo, Waterloo, Ontario, Canada, November 17, **Physics Colloquium**, "Attosecond Imaging -- Asking a Molecule to Paint a self-portrait"
95. University of Rochester, Rochester, N.Y. USA, December 2, **Colloquium, Institute of Optics**, "Attosecond Science"
96. Pacifichem 2005. Honolulu, Hawaii, USA, December 15-20, **Invited Talk**, "Molecular Imaging -- Asking a Molecule to Paint a self-portrait"

Oral Presentations (2006)

97. Defence Research Establishment Valcartier, Valcartier, Québec, Canada, Jan 25, **Colloquium**, "Attosecond Imaging -- Asking a Molecule to Paint a self-portrait"
98. Harvard University, Cambridge, Ma, USA, Feb. 9, **Chemistry Seminar**, "Attosecond Imaging -- Asking a Molecule to Paint a self-portrait"
99. University of Alberta, Edmonton, Alberta, Canada, March 2, **Annual Student lecture, Electrical Engineering**, "Attosecond 10^{-18} sec Technology" "Attosecond Science as Interferometry"
100. Austin Symposium on Molecular Structure, Austin, TX, USA, **Plenary Lecture**, March 4-8, "Attosecond Imaging -- Asking a Molecule to Paint a self-portrait"
101. Texas A&M University, College park, Texas, USA, **Physics Seminar**, March 7 "Attosecond Science as Electron Interferometry"
102. International Conference on Pure and Applied Chemistry, Kyoto, Japan, April 2-6, **Plenary Lecture** "Imaging Molecular Structure"
103. University of Kyoto, Kyoto, Japan, April 4, **Physics Seminar**, "From Femtoseconds to Attoseconds"
104. University of Kobe, Kobe, Japan, April 5, **Chemistry Seminar**, "Attosecond science as electron interferometry: seeing electrons"
105. Ultrafast dynamic Imaging Workshop, London, U.K. **Invited Talk**, April 8-12, "Control and Measurement of Attosecond Pulses"
106. Acadia University, Wolfville, NS, May 14, **Special Honorary Lecture**, "Attosecond Science"
107. Division of Atomic, Molecular and Optical Physics, Tenn, USA, May 16-20, **Invited Talk**, "Control and Measurement of Attosecond Pulses"
108. Multiphoton Gordon Conference, Tilton, Mass, USA June 11-16, **Invited Talk**, "Control and Measurement of Attosecond Pulses"
109. KITP Attosecond Theory Workshop, Santa Barbra, California, USA, August 7-12, **Two Special Invited Talks** "Attosecond Science as collision physics" and "Attosecond Science as optical physics"

110. [QEP-17/PHOTON'06](#), Manchester, U.K. Sept 6, **Invited Talk** “Control and Measurement of Attosecond Pulses”
111. International Wilhelm and Else Heraeus Summer School on Few-body dynamics in atomic and molecular systems, Lutherstadt, Germany, Sept 17-20, **Three lecture course**. “Ultrafast Lasers”,
“Attosecond Science and Collision Physics”
“Attosecond Science as Optical Physics”
112. Québec City meeting Sept 27-30, **Invited Talk** “Control and Measurement of Attosecond Pulses”
113. FAO/OSA Rochester, NY, Oct 8-11, **Award lecture**, “Mapping Attosecond Science onto Electron Interferometry
114. IEEE Lasers and Electron Optical society (LEOS) Annual Meeting, Oct 29-Nov 2, Montreal PQ, **Plenary Lecture**, “Control and Measurement of attosecond pulses
115. Lehigh University, Bethlehem Pa. USA, Nov 16, **Physics Colloquium**, “Attosecond Science”

Oral Presentations (2007)

116. South East Ultrafast Conference, Nashville, TN. January 11-12, **Plenary lecture**, “Attosecond Science and Technology”.
117. Texas A and M University, College Station, TX. January 25, **Physics Colloquium**, “Mapping Attosecond Science onto Electron Interferometry”.
118. University of California at Berkley, Berkeley, CA, Feb 5-6, **Physical Chemistry Seminar**, “Attosecond Electron Interferometry”.
119. Ohio State Lecture Series on Spectroscopy Jan 31-Feb 2: **Three lectures course on attosecond spectroscopy**:
 - Attosecond Optical Science
 - Attosecond technology and collision science
 - High Harmonic Transient Grating Spectroscopy
120. McGill University, Montreal Québec. Feb 9 **Physics Colloquium** “Attosecond Science”
121. Queens University, Kingston Ontario Feb 13 **Physics Colloquium** “Using Attosecond Technology to Image Molecular Orbitals”
122. APS March Meeting, Denver Colorado, March 7-9, **Invited Talk**, “Transient Grating Interferometry with Re-collision Electrons”
123. Brown University, Providence RI, April 4, **Clapp Lecture** “Using Attosecond Technology to Image Molecular Orbitals”
124. Brown University, Providence RI, April 6, **Chemistry Colloquium**, “Attosecond Science and Transient Grating Spectroscopy”
125. University of Central Florida, **Invited Lecturer for Industrial Affiliates Day**, April 13 “Attosecond Technology”
126. 20th anniversary celebration Laser-Laboratorium 1987-2007, Gottingen, Germany, April 25-26, **Plenary lecture**, “Attosecond Electron Interferometry”
127. CLEO, Baltimore MD. May 7-11, **Tutorial**, “Attosecond pulses – a new Frontiers in Metrology”

128. Cross Boarder Workshop, Toronto, Canada, **Invited Lecture** “Attosecond Science”
129. Annual conference of APS’ Division of Atomic, Molecular and Optical Physics , Calgary, Al May 16-20, **Invited Talk**, “Control and Measurement of Attosecond Pulses”
130. Annual conference of APS’ Division of Atomic, Molecular and Optical Physics , Calgary, Al May 16-20, **Public Lecture**, “Control and Measurement of Attosecond Pulses”
131. Multiphoton Gordon Conference, Tilton, Mass, USA June 11-16, **Invited Talk**, “Control and Measurement of Attosecond Pulses”
132. Femtochemistry and Femtobiology 08, Oxford, U.K. July 22-27, **Invited Talk**, “Electron Interferometry and Transient Grating Spectroscopy with High Harmonics”
133. 15th International Conference on Vacuum Ultraviolet Radiation Physics, July 29-August 3, **Plenary Lecture**, “Attosecond Science and Technology”
134. Quantum Control Gordon Conference, Newport, R.I. USA, August 13-17, **Invited Talk** “Control and Measurement of Attosecond Pulses”
135. Royal Society Conference on Atoms, Photons and Q-bits, London, UK Sept 3-5, **Plenary Lecture**, “Multiphoton Physics in Transparent Dielectrics”
136. Imperial College, London, UK, Sept 6, **Physics Colloquium**, “Laser Induced Molecular Imaging”
137. Rutherford Appleton Laboratory, Didcot, U.K. Sept 7, **Physics Colloquium**, “Attosecond Science and Technology”
138. International Conference on Ultra-Intense Laser Interaction Sciences, Bordeaux, France, October 1-5, **Plenary Lecture**, “Attosecond Science and Technology”
139. Workshop on Future X-ray Sources, Berkeley, CA, Oct 8-10, **Plenary Lecture** “Attosecond XUV Pulse Generation”
140. University of Nebraska, Lincoln, NE, **Physics Colloquium** “Attosecond Science”
141. Ecole Polytechnique, Montreal Québec, November 29 **Engineering Colloquium** “Attosecond Science and Technology”
142. Wayne State University, Detroit, MI, Nov 5, **Frontiers in Chemistry Lecturer** “Laser Induced Imaging”
143. University of Michigan, Ann Arbor, MI, Nov 6, **NSF Focus Lecture**, “Attosecond Science and Technology”

Oral Presentations (2008)

144. Germany Physical Society, Darmstadt, Germany, March 9-11, **Plenary lecture**, “LaserInduced Imaging”.
145. Boston College, Boston Ma. April 24, **Chemistry Colloquium**, “Laser Induced Molecular Imaging”.
146. University of Toronto, Toronto ON, May 1, **Welsh Public Lecture**, “Atto-Science”
147. University of Toronto, Toronto, ON. May 2, **Welsh Physics Colloquium**, “Laser InducedMolecular Imaging”.

148. ITAMP Attosecond Workshop, Boston, Mass, May 15-17, **Invited Lecture Series** Attosecond Science: A Discontinuity in Technology Multiphoton Physics: Dividing the Light Period Attosecond Science in Solids
149. Photonics North, Montreal P.Q. July 2-4, **Plenary Lecture**, "Multiphoton Ionization and Attosecond Science inside Transparent Dielectrics"
150. European Group of Atomis Spectroscopists (EGAS), Gratz, Austria, July 2-5, **Invited lecture**: "Laser Induced molecular Imaging"
151. Free University of Berlin, Berlin, July 11, **Special Honorary Degree Lecture** in honor of for Dr. A. D. Bandrauk, "Attosecond Science"
152. Texas A and M University, College Station, TX. August 14 **Physics Colloquium**, "Attosecond Science and Technology".
153. International Conference on Multiphoton Processes, Heidelberg, Germany, Sept 18-24, **Invited Lecture**, "A Molecular STM"
154. Conference on Filamentation, Paris, France, Sept 22-25, **Plenary Talk**, "Multiphoton Ionization and Attosecond Science inside Transparent Dielectrics"
155. High Tech Lecture, Ottawa, ON. October 16, **Lunch Address**: "Wild and Crazy Photonics"
156. Department of Chemistry, University of Western Ontario: Oct 27-29 **3M Lectures Attosecond Science**: Ultrafast Lasers: The basics Controlling Molecules with Intense Laser Pulses Molecular Imaging: Merging Control with Attosecond Methods
157. Dynamics and Spectroscopy of Small Molecules and Biomolecules in Taipei, Taiwan. November 9-12, 2008, **Plenary Talk** "Laser Induced -- Tunneling, Electron Diffraction and Molecular Orbital Imaging"
158. NATO Advanced Study Institute 2008 Laser Control & Monitoring in New Materials, Biomedicine, Environment, Security and Defense. **Two Lecture Series**: From Femtoseconds to Attoseconds Multiphoton Ionization and Attosecond Science inside Transparent Dielectrics
159. Royal Society of Canada Workshop on Advanced metrology, Ottawa, ON, Dec 11, **Invited Talk**: "Attosecond Metrology"

Oral Presentations (2009)

160. Ecole Polytechnique, Paris, France, January 7, **Physics Colloquium**, "Extreme Nonlinear: Angstrom-Attosecond Science".
161. SPIE Conference "Photonics West", San Jose, CA January 26-29, **Keynote Address**, "Multiphoton Ionization and Attosecond Science in Wide Band-Gap Dielectrics".
162. France-Israel 10 Biannual conference "FRESNO 10", Ein Gedi, Israel, February 8-13, **Invited Talk**, "Extreme Nonlinear: Angstrom-Attosecond Science"
163. Weizmann Institute, Rehovot, Israel, February 16, **Physics Colloquium**, "Attosecond Science".
164. CLAN Workshop, Toronto, ON, March 8-9, **Invited Talk**, "Femtosecond Laser Science for Processing Dielectrics".

165. American Physical Society March Meeting, Pittsburg, Pa., March 16-18, **Invited Talk**, "Attosecond Radiation via High Harmonic Generation".
166. American Chemical Society meeting, Salt Lake City, UT, March 22-26, **Invited Talk**; "Molecules and Attosecond Science"
167. JST special Symposium on the Evolution of Light Generation and Manipulation, Tsukuba, Japan, March 31-April 1, **Plenary Talk** "Extreme Nonlinear: Angstrom-Attosecond Science".
168. University of Tokyo, April 1, **Chemistry Colloquium**; "Laser Induced -- Tunneling, Electron Diffraction and Molecular Orbital Imaging".
169. RIKEN Special Symposium, Tokyo, Japan, **Plenary Talk**, April 2-3, "Controlling Attosecond Pulses".
170. Massachusetts Institute of Technology (MIT), Cambridge, MA, April 27, **Hermann Haus Lecture**, "Attosecond Science".
171. Conference on Dynamic Imaging, Ischia, Italy, April 29-May 3, **Invited Talk**, "A Laser STM for Molecules".
172. KITP teacher's workshop on Laser Coherent Control, Santa Barbara, CA., May 16 **Special Public Lecture** "Atto-Science – Catching Electrons".
173. KITP workshop on Laser Coherent Control; Santa Barbara, CA. May 18-23, **Invited Talk**, "Attosecond Science and Coherent Control"
174. Humboldt Foundation Symposium; Ottawa, ON, May 28, **Invited Talk**, "Atto-Science –Catching Electrons".
175. Cross Border Workshop, Ottawa ON, May 28-30, **Invited Talk**, "Future Trends in Attosecond Science"
176. Canadian Association of Physicists Annual Meeting, Moncton, NB, June 8-10, **Invited Talk**, "Extreme Nonlinear Optics; Angstrom-Attosecond Science" ..
177. DESY, Hamburg, Germany, June 25, **Special 50th anniversary lecture**, "Extending Ultrafast science to Attoseconds".
178. Max Born Institute, Berlin, Germany, July 1, **Special lecture on the 100th anniversary of science in Adlershof**", Atto-Science – Catching Electrons".
179. International Conference on Atom and Photon Collisions, July 23-28, **Plenary Lecture**, "Attosecond Science and Molecular Imaging".
180. Second Attosecond Science Conference, Manhattan, Kansas, July 27-31, **Invited Talk**, "Molecules and Attosecond Science".
181. CLEO Pacific Rim 2009, Shanghai 28 Aug-3 Sept, **Invited Talk**, "Attosecond Science".
182. CUPC 2009 45th Annual Canadian Undergraduate Conf. Edmonton 2-4 Oct, **Invited Talk**, "Atto-Science; Catching Electrons"
183. CIFAR Conference on Quantum Information, Banff Springs, 27-29 Oct, **Invited Lecture**, "Attosecond Science"
184. University of New Brunswick, Nov 6, **Physics Colloquium**, "Atto-Science; Catching Electrons"
185. Royal Canadian Institute, Toronto, Canada, 12-13Nov **Public Lecture**, "Catching Electrons in Attoseconds".
186. Queens University, Kingston, ON, **Chemistry Colloquium – Annual Jones Lecture**, "Laser Induced Molecular Imaging".

Oral Presentations (2010)

187. SPIE Photonics West, Attosecond Angstrom Science, San Francisco, 26-28 JAN10, **Plenary Talk**
188. AUPAC 2010, Halifax, 5-7FEB10, **Invited Talk**, "Attosecond Science-Catching Electrons"
189. Bell High School, Ottawa, 12FEB10, **Public Lecture** "Catching Electrons in Attoseconds"
190. University of Ottawa, 17MAR10, **Physics Colloquium**, "Imaging Molecular Structure and Dynamics with Attosecond Technology"
191. 239th ACS National Meeting, San Francisco, 21-25MAR10, **Zewail Award**, "Laser Induced Molecular Imaging"
192. Cap Lecture Tour, Calgary, 31MAR10, **Invited Talk** "Catching Electrons with Light"
193. Cap Lecture Tour, Lethbridge, 1APR10, **Invited Talk** "Catching Electrons with Light"
194. Cap Lecture Tour, Lakehead University, 6APR10, **Invited Talk**, "Catching Electrons with Light"
195. Cap Lecture Tour, Laval University, 13APR10, **Invited Talk**, "Catching Electrons with Light"
196. Celebration Laser 2010, Ted Maiman Tribute, Vancouver, 14-16MAY10, **Public Lecture** "From Femtoseconds to Attoseconds"
197. DAMOP 2010, Houston, 25-29MAY10, **Invited Talk**, "How Initial State Correlation Controls Sequential Laser Tunnel Ionization"
198. INRS Plasma Québec, Montreal, 1JUN10, **Invited Talk**, "Plasma Physics at the Atomic Level"
199. Cross Border Workshop 2010, Waterloo, 3-4JUN10, **Invited Talk**, "How Initial State Correlation Controls Sequential Laser-Induced Tunneling"
200. Gordon Research Council, New Hampshire, USA, 6-11JUN10, **Plenary Talk**, "How Initial State Correlation Controls Sequential Laser-Induced Tunneling"
201. VUVX 2010, Vancouver, Canada 10-18JUL10, **Public Lecture** "Catching Electrons with Light"
202. GCOE (Global Center of Excellence, Sendai, Japan, 1-3SEP10, **Invited Talk** "Laser Induced Molecular Orbital Imaging,
203. MPS 2010, Sendai, Japan, 4-7SEP10, **Invited Talk** "Probing Correlations between Electrons in Atoms and Molecules"
204. ADLIS Symposium, Vienna, 29-30OCT10, **Public Lecture**, "Catching Electrons with Light"
205. Imperial College, London, England NOV 2010, **Public Lectures** "3-Lecture Series"
206. Jones Lecture, London, England, 24NOV10, **Invited Lecture**
207. CPA Symposium, Québec City, Canada, 17-21NOV10, **Invited Lecture** "Observing Intra-atomic Electron Correlation by tunneling and Re-collision"

208. Pacifichem 2010, Honolulu, Hawaii, 15-23DEC10, **Plenary Lecture**, "Catching Electrons with Light"

Oral Presentations (2011)

209. Canadian Science & Technology Museum, Ottawa, Ontario, 21JAN11, **Public Lecture**, "Catching Electrons with light"
210. University of Sherbrooke, Sherbrooke, QC, 16FEB11, **Chemistry Colloquium**, "Attosecond Science – Can Space and Time Resolution Be Combined to Probe Chemical Dynamics?"
211. ALLS Brainstorming Workshop, Sainte-Adele, Québec, 26FEB11, **Plenary Talk**: "Attosecond Science, Harmonics & Dynamic Molecular Imaging"
212. 75th Annual Meeting German Physical Society, Dresden, Germany, 14MAR11, **Keynote Lecture**, "Observing Intra-atomic Electron Correlation by Tunneling and Re-collision"
213. APS Meeting 2011, Dallas, USA, 23MAR11, **Invited Lecture**, "Probing Electron Correlation with Sequential Laser-induced Tunnel Ionization"
214. JAPC ITAMP, Cambridge, USA, 04MAY11, **Colloquium Talk**, "Laser Induced Molecular Imaging"
215. 79th Congress of ACFAS, Sherbrooke, QC, 9MAY11, **Invited Talk**, "Catching Electrons with Light"
216. 13th Photonics North Conference 2011, Ottawa, ON, 16MAY11, **Plenary Lecture**, "Attoseconds Photonics – the First Decade and Beyond"
217. CALTECH, Pasadena, California, USA, 24MAY11, **Chemistry Colloquium**, "Laser Induced Molecular Imaging"
218. Annual Physical Chemistry Meeting 2011, Berlin, Germany, 02JUN11, **Plenary Lecture**, "Laser Induced Molecular Imaging"
219. Cross Border Workshop, Rochester, USA, 10JUN11, **Invited Talk**, "Laser Induced Tunneling"
220. 3rd International Conference on Attosecond Physics-ATTO3, Sappora, Japan, 8JUL11, **Invited Speaker**, "Tunneling and High Harmonic Spectroscopy"
221. MPC-AC Inauguration Workshop, Pohang, Korea, 11JUL11, **Keynote Speaker**, "Extreme Nonlinearity: Attosecond-Angstrom Science"
222. POSTECH, Pohang, Korea, 13JUL11, **Public Lecture**, "Atto-Science – Catching Electrons"
223. KAIST, Daejeon, Korea, 14JULY11, **Invited Lecture**, "Probing Molecular Asymmetry with Tunneling and Attosecond Pulse Trains"
224. Gordon Conference 2011, South Hadley, MA, 03AUG11, **Keynote Speaker**, "Coherent Control in High Harmonic and Attosecond Pulse Generation"
225. RQÉMP 2011 Summer School, Sherbrooke, QC, 17AUG11, **Plenary Talk**, "Attosecond-Angstrom Science"
226. SASQC, Imperial College, London, UK, 9SEP11, **Invited Talk**, "Probing Molecular Asymmetry with Attosecond Pulse Trains"
227. COMET 2011, Oxford, UK, 15SEP11, **Invited Talk**, "Laser Induced Molecular Imaging"

- 228. 40th Anniversary of the Canada-Germany S&T Cooperation, Ottawa, Ontario, 21OCT11, **Public Lecture**, “Catching Electrons with Light”
- 229. Temple University, Philadelphia, PA, 21NOV11, **Physics Colloquium**, “Attosecond Science – Can Atomic Scale Temporal and Spatial Resolution be Combined?”
- 230. Rutherford Appleton Laboratory, Harwell, Oxford, UK, 01DEC11, **JD Lawson Lecture**, “Attosecond Science – Combining Atomic Scale Temporal and Spatial Resolution”
- 231. MURI (Multidisciplinary University Research Initiative), 2011 Attosecond Review, Adelphi, Maryland, 12DEC11, **Plenary**, “Towards Shorter Attosecond Pulses – Measuring Spatial and Temporal Properties”

Oral Presentations (2012)

- 232. AFOSR Joint Review, Arlington, Virginia, USA, 6JAN12, **Plenary Talk**, “Laser-Induced Molecular Imaging”
- 233. AAAS Annual Meeting, Vancouver, British Columbia, 17FEB12, **Symposium Session Panelist**, “Imaging and Controlling Molecular Dynamics with Ultrashort Laser Pulses”
- 234. Harvard University, Cambridge, MA, 8MAR12, **RB Woodward Lectures**, “Laser Induced Molecular Imaging”
- 235. AFOSR Attosecond Workshop, University of Central Florida, Orlando, Florida, USA, 16APR12, “**Attosecond Science and Technology—the Second Decade**”
- 236. Jena University Colloquium, Jena, Germany, 7MAY12, **Colloquium**, “Attosecond Pulse Generation: What we learn by converting many photons into one”
- 237. 500 WE-Heraeus Seminar, Bad Honnef, Germany, 10MAY12, **Invited Talk**, “High Harmonic Generation: What we learn by converting many photons into one”
- 238. Institute of Physics, Tyndall Institute, Cork, Ireland, 21MAY12, **Invited Talk**, “Attosecond Science: What we learn by transforming many photons into one”
- 239. Institute of Physics, Queen’s University, Belfast, Ireland, 22MAY12, **Invited Talk**, “Attosecond Science: What we learn by transforming many photons into one”
- 240. Institute of Physics, Dublin City University, Dublin, Ireland, 24MAY12, **Invited Talk**, “Attosecond Science: What we learn by transforming many photons into one”
- 241. Cross Border Workshop 2012, McGill University, Montreal, Québec, 14JUN12, **Invited Talk**, “What we learn by changing many photons into one”
- 242. CPEM 2012, Washington, D.C., 5JUL12, **Plenary**, “High Harmonic Interferometry”
- 243. L’Phys’12, University of Calgary, Calgary, Alberta, 23JUL12, **Plenary**, “Integrating Perturbation Nonlinear Optics with Attosecond Science”
- 244. Michigan State University, East Lansing, Michigan, USA, 13SEP12, **Colloquium**, “Generating, Measuring and Using Attosecond Pulses”
- 245. Science at the Edge, Michigan State University, East Lansing, Michigan, USA

- 14SEP12, **Invited Talk**, “Catching Electrons with Light”
246. IMPRS Physics of Light Annual Meeting, Max Planck Erlangen, Germany, 19SEP12, **Invited Talk**, “Generating, Measuring and Using Attosecond Pulses”
247. MURI Workshop on Filament Science, Santa Fe, New Mexico, 05OCT12, **Invited Talk**, “Multiphoton Ionization and Plasma Formation in Filaments”
248. 2012 Frontiers in Optics and Laser Science XXVII Conference, Rochester, New York, 15OCT12, **Plenary**, “Attosecond Photonics: What we learn by transforming many photons into one”
249. Yale University, New Haven, CT, 06NOV12, **William A. Chupka Lecture**, “Laser Induced Molecular Imaging”
250. Austrian Academy of Science Doctoral School Opening, Vienna, Austria, 16NOV12, **Invited Talk**, “Catching and Characterizing Electron with Light”
251. Vienna Physics Colloquium, Vienna, Austria, 19NOV12, **Colloquium**, “Attosecond Photonics: What we learn by transforming many photons into one”
252. ESF-LFUI Conference, Obergurgl University Centre, Obergurgl, Austria, 22NOV12, **Invited Talk**, “Aligning and Orienting Molecules with Intense Light Pulses”
253. 25th Anniversary Celebration, Goettingen, Germany, 26NOV12, **Invited Talk**, “Attosecond Photonics”
254. AFOSR 2012 Ultrashort Pulse Laser-Matter Interactions Program Review, Potomac, Maryland, 18DEC12, **Invited Talk**, “Laser Induced Molecular Imaging”
255. Max Planck Institut for the Science of Light, Erlangen, Germany, 20DEC12, **MPL Distinguished Lecturer Series**, “Attosecond Photonics: What we learn by transforming many photons into one”

Oral Presentations (2013)

256. PQE 2013, Snowbird, Utah, USA, 8JAN13, **Plenary Talk**, “Perturbing Attosecond Pulse Generation”
257. AAAS 2013 Annual Meeting, Boston, Massachusetts, USA 17FEB13, **Symposium**, “Attosecond Pulse Technology: Generation and Characterization”
258. City College New York, New York, New York, USA 20FEB13, **Colloquium**, “Atto-Science: what we learn by converting many photons into one ”
259. ALLS Workshop, Val-David, Québec, 21FEB13, **Invited Talk**, “Attosecond Science, present and future”
260. CLEO/Europe-IQEC Conference, Munich, Germany, 14MAY13, **Tutorial**, “Attosecond Science and Technology”
261. S.L. Chin Symposium, Laval University, Québec City, Québec, 23MAY13, **Invited**, “Attosecond Pulse Metrology”
262. DAMOP 2013, Québec City, Quebec, 7JUNE13, **Invited Talk**, “Laser Control of Harmonic Generation in Molecules—“
263. CLEO 2013 Conference, San Jose, California, USA, 11JUN13, **Plenary Talk**, “Attosecond Photonics”
264. ICOLS 2013, Berkeley, California, USA, 12JUN13, **Invited Talk**, “Attosecond pulses and high harmonic spectroscopy”.

- 265. CFEL Inauguration, Hamburg, Germany, 17JUN13, **Keynote**,
- 266. ICONO 2013, Moscow, Russia, 20JUN13, **Keynote**, “Attosecond Science: What we learn by converting many photons into one”
- 267. ISWAMP2, Xi’an, China, 20JUL13, **Plenary**, “Attosecond Science and Technology, Producing, Measuring and Applying Attosecond Pulses.
- 268. IOP QuAMP 2013, Swansea University, UK, 9SEP13, **Plenary**, “Attosecond Pulses and High Harmonic Spectroscopy”
- 269. German-Canadian Workshop, INRS, Varennes, Québec, 20SEP13, **Invited Talk**, “Attosecond Photonics”
- 270. 2013 IEEE Photonics Symposium, University of Ottawa, Ottawa, 24OCT13, **Invited Talk** “Attosecond Science and Technology”.
- 271. Ohio State University Physics Colloquium, Columbus, Ohio, USA, 19NOV13, **Invited Talk**, “Attosecond Science and Technology”
- 272. IQC: Quantum Frontiers Distinguished Lectures Series, University of Waterloo, Waterloo, Ontario, 5DEC13, **Distinguished Lecture**: “Attosecond Science and High Harmonic Spectroscopy”

Oral Presentations (2014)

- 273. Carleton University Physics Colloquium, Ottawa, Ontario, 21JAN14, **Colloquium**, “Attosecond Pulses and High Harmonic Spectroscopy”
- 274. Berkeley Physical Chemistry Seminar, Berkeley, California, USA, 18FEB14, **Seminar**, “Attosecond and High Harmonic Spectroscopy”
- 275. Texas A&M Colloquium, College Station, Texas, USA, 20FEB14, **Colloquium**, “Atto-science: what we learn while converting many photons into one”
- 276. CRM Workshop, Université de Montréal, Montreal, Québec, 10MAR14, **Invited Talk**, “Ionization, Currents and Lasing in Filaments”
- 277. Technion Colloquium, Technion University, Haifa, Israel, 7APR14, **Colloquium**, “Atto-science: what we learn while converting many photons into one”
- 278. Technion Lecture, Technion University, Haifa, Israel, 10APR14, **Invited Talk**, “Generation and Measurements of Attosecond Pulses”
- 279. IONS Conference, Montreal, Québec, 25MAY14, **Keynote**, “Attosecond Science – Catching Electrons”
- 280. AFOSR Review, Arlington, VA, USA, 28MAY14, **Invited Talk**, “Measurement and Control of Attosecond Pulses”
- 281. Multiphoton Processes Gordon Research Conference, Waltham, MA, USA, 15JUN14, **Keynote**, “Horizons in Multiphoton Physics”
- 282. Mourou@70: From Ultrafast to Extreme Light, University of Michigan, Ann Arbor, MI, USA, 21JUN14, **Invited Talk** “Time Resolving High Intensity Processes Using In-Situ Methods”
- 283. FEL-Atto Conference, University College London, London, UK, 30JUN14, **Public Talk**, “Catching Electrons with Light”
- 284. FEL-Atto Conference, University College London, London, UK, 2JUL14, **Keynote**, “Measuring and Controlling Attosecond Pulses through the Driving Laser Field”

285. Coherence and Control in the Quantum World: The Legacy of Moshe Shapiro, University of British Columbia, Vancouver, B.C., 13AUG14, **Invited Talk**, “Coherent Control in Solids”
286. Frontiers of Intense Laser Physics, Kavli Institute, Sanata Barbara, CA, USA, **Invited Talk**, “What we learn about super-intense interactions from intermediate intensity experiments”.
287. OSA Frontiers in Optics/ Laser Science, Tuscon, Arizona, USA, 20OCT14, **Ives Medal Address**, “A Petahertz Oscilloscope – All optical measurement in the atto domain”
288. UCLA Physics Colloquium, Los Angeles, CA, USA, 6NOV14, **Colloquium**, “Attosecond Photonics: What we learn while converting many photons into one”
289. Workshop on the Future of Science at Light Sources, Zurich, Switzerland, 12NOV14, **Invited Talk**, “Attosecond Science”
290. MURI Kick-Off Meeting, University of California, Berkeley, CA, USA, 17NOV14, **Invited Talk**, “A pump-probe method for measuring attosecond dynamics in atoms and molecules”
291. Australian Institute of Physics Congress 2014, Canberra, Australia, 8DEC14, **Plenary**, “Atto-Science: What we learn by converting many photons into one”

Oral Presentations (2015)

292. Princeton Distinguished Speaker’s Colloquium, Princeton University, Princeton, New Jersey, 10FEB15, **Colloquium**, “A Plasma Perspective on Atomic Multiphoton Level”
293. King Saud University Laboratory Inauguration Ceremony, King Saud University, Riyadh, Saudi Arabia, 16FEB15, **Invited Talk**, “Using attosecond methods to study molecules from the inside”
294. AFOSR Ultrashort Pulse Laser-Matter Program Review, Arlington, VA, USA, 27MAY15, **Invited Talk**, “Measurement and Control of Attosecond Pulses”
295. Excon 2015, Polytechnique Montreal, Montreal, QC, 21MAY15, **Invited Talk**, “Attosecond and High Harmonic Pulse Generation from Gases to Solids”
296. DAMOP 2015, Columbus, Ohio, USA, 11JUN15, **Invited Talk**, “Probing the relation between high harmonics from gases and solids”
297. Photonics North 2015, Ottawa, Ontario, 9JUN15, **Plenary**, “Attosecond Science in Gases and Solids”
298. CERF 15, Correlation Effects in Radiation Fields 2015, Rostock, Germany, 16SEP15, **Plenary**, “Attosecond science in solids and gases”
299. E.W. Guptill Technical Talk, Dalhousie University , Halifax, NS, 24SEP15, **Invited Talk**, “Attosecond Science in Gases and Solids”
300. E.W. Guptill Memorial Lecture, Dalhousie Univesrity, Halifax, NS, 25SEP15, **Public Lecture**, “Forcing a Molecule to Take a Selfie”
301. Lehigh University Colloquium, Bethlehem, PA, USA, 15OCT15, **Colloquium**, “Attosecond Science – from Gases to Solids”

- 302. CUPC 2015, Trent University, Peterborough, ON, 25OCT15, **Keynote**, “ Using attosecond methods to study quantum systems from the inside – from atoms to molecules to solids”
- 303. IEEE Ottawa AGM, Ottawa, ON, 6NOV15, **Keynote**, “Attosecond, the soft X-ray Science”

Oral Presentations (2016)

- 304. University of Houston Chemistry Seminar, Houston, USA, 18FEB16, **Invited Talk**, “Attosecond Spectroscopy”
- 305. Max Planck Institute of Quantum Optics, Garching, Germany, 8MAR16, **Colloquium**, “Linking high harmonics from atoms and solids”
- 306. Russian Academy of Science Annual Meeting, Moscow, Russia, 22MAR16, **Medal Address**, “Probed quantum systems from the inside while producing the world’s shortest optical pulses”
- 307. Princeton Plasma Symposium in Honour of Prof. Nathaniel J. Fisch, Princeton, NJ, USA, 28MAR16, **Invited Talk**, “Ionization in atomic and solid state physics”
- 308. SPIE Symposium, Baltimore, Maryland, USA, 18APR16, **Invited Talk**, “Dynamically measuring of the band structure using attosecond methods and high harmonic generation in solids”
- 309. SPIE Symposium, Baltimore, Maryland, USA, 18APR16, **Keynote**, “High-harmonic generation in atoms, molecules and wide-bandgap semiconductors”
- 310. IMPRS Symposium on the Science of Light, Max Planck Institute for the Science of Light, Erlangen, Germany, 25APR16, **Invited Talk**, “Perturbing Extreme Nonlinear Optics”
- 311. L’INRS 2016 Symposium on Molecules and Laser Fields: 75th Anniversary of Andre Bandrauk, Sherbrooke, QC, 5MAY16, **Invited Talk**, “The photon momentum sharing during multiphoton ionization?”
- 312. Photonics North, Quebec City, QC, 24MAY16, **Invited Talk**, “Linking High Harmonics from gases and wide-bandgap semiconductors”
- 313. AFOSR Ultrashort Pulse Laser-Matter Interactions Program Review, Arlington, VA, USA, 2JUN16, **Invited Talk** “Linking Attosecond Science in Solids and Gases”
- 314. CAP Congress 2016, Ottawa, ON, 16JUN16, **Plenary**, “Probed quantum systems from the inside – on the attosecond time scale”
- 315. IVNC 2016, University of British Columbia, Vancouver, BC, 12JUL16, **Plenary**, “Harnessing Photoionization or Photo-recombination to create Attosecond Science and Technology”
- 316. International Symposium on Attosecond Science, Tokyo, Japan, 30JUL16, **Keynote**, “High harmonic generation from atoms and solids”
- 317. Joint Max Planck-University of Ottawa Centre for Extreme and Quantum Photonics Annual Meeting, Ringberg Castle, Tegernsee, Germany, 19JUL16, **Invited Talk**, “Linking high harmonics in gases and solids”
- 318. Europhoton 2016, Vienna, Austria, 22AUG16, **Lecture**, “From Femtoseconds to Attoseconds ”

319. ICUIL 2016 Conference, Montebello, Quebec, 15SEP16, **Invited Talk**, "Linking high harmonic generation in solids and gases"
320. University of Alberta Symposium for Graduate Physics Research, Edmonton, Alberta, 22SEP16, **Public Lecture**, "A molecule takes a selfie while creating the world's shortest light pulses"
321. University of Alberta Symposium for Graduate Physics Research, Edmonton, Alberta, 23SEP16, **Keynote** "Probing quantum systems from the inside – on the attosecond time scale"
322. University of Innsbruck Physics Lecture, Innsbruck, Austria, 25OCT16, **Innsbruck Annual Physics Lectures**, "Probing quantum systems from the inside - on the attosecond time scale"
323. 2016 Joint-Attosecond MURI Annual Meeting, MURI-1, University of Arizona, TZ, USA, **Invited Talk (Co-presenter Giulio Vampa)**, 14NOV16, "High harmonic generation in structured semiconductors and nano-plasmonic devices"
324. 2016 Joint-Attosecond MURI Annual Meeting, MURI-9, University of Arizona, TZ, USA, **Invited Talk**, 15NOV16, "Using few-cycle space-time coupled pulses in attosecond technology"
325. IQST Annual Quantum Lecture, the Institute of Quantum Science and Technology, University of Calgary, **Annual Quantum Lecture**, 24NOV16, "A molecule takes a selfie while creating the world's shortest light pulses"
326. University of Calgary Department of Chemistry Lecture, **Invited Talk**, 25NOV16, "Probing quantum systems from the inside – on the attosecond time scale"

Oral Presentations (2017)

327. PQE 2017, 47th Winter Colloquium on Physics of Quantum Electronics, Snowbird, Utah, USA, **Plenary**, 10JAN17, "Linking High Harmonics from Solids and Gases"
328. Symposium on Ultrafast AMO Science, Kansas State University, Manhattan, KS, USA, **Plenary**, 31MAR17, "Linking high harmonics from solids and gases"
329. 253rd ACS National Meeting, San Francisco, CA, USA, **Invited Talk**, 2APR17, "Probed quantum systems from the inside: On the attosecond time scale"
330. Quantum Canada, National Research Council Canada, Ottawa, ON, **Keynote**, 11APR17, "Canadian Quantum Science"
331. DRDC Workshop, National Research Council Canada, Ottawa, ON, **Keynote**, 8MAY17, "Quantum Photonics for Defence"
332. AFOSR Ultrashort Pulse Laser-Matter Interactions Review, Arlington, VA, USA, **Invited Talk**, 30MAY17, "Linking Attosecond Science in Solids and Gases"
333. University of California, Berkeley, Miller Institute's Interdisciplinary Symposium, San Francisco, CA, USA, **Invited Talk**, 2-4JUN17 "Probed quantum systems on the attosecond time scale"
334. Fluidigm Canada, Toronto, ON, Canada, **Invited Talk**, 20JUN17, "Laser desorption and ionization"
335. ATTO2017, Xi'an, China, **Tutorial**, 6JUL17, "The physics and technology of high harmonics from transparent solids"

336. International School of Atomic and Molecular Spectroscopy, Quantum Nano-Photonics Advanced Study Institute, Erice, Sicily, Italy, **Invited Lectures**, “Attosecond Science in Solids and Gases”
337. COLA2017, Conference on Laser Ablation, Marseille, France, **Plenary**, 4SEP17, “The response of transparent materials to intense ultrashort light pulses”
338. AFOSR Horizons Lecture Series, Arlington, VA, USA, **Invited Talk**, 14SEP17, “Extending the time horizon to attosecond and beyond”
339. ICOMP 2017, Budapest, Hungary, **Keynote**, 25SEP17, “Linking high harmonics from gases and solids”
340. 2017 IEEE Photonics Conference, Orlando, Florida, USA, **Invited Talk**, 5OCT17, “The Response of Transparent Materials to Intense Ultrashort Light Pulses”
341. 2017 Joint-Attosecond-MURI Annual Meeting, MURI-9, Columbus, Ohio, USA, **Invited Talk**, 16NOV17, “Linking attosecond science in solids and gases”
342. 2017 Joint-Attosecond-MURI Annual Meeting, MURI-1, Columbus, Ohio, USA, **Invited Talk**, 17NOV17, “Gain in N₂⁺ following high-harmonic generation”
343. Ultrafast Quantum Control: the Path to Solids School and Brainstorming Session, Stewart Blusson Quantum Matter Institute, University of British Columbia, Vancouver, BC, **Invited Talk**, 13DEC17, “Attosecond physics in solids”

Patents:

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2. “Infrared pulse compression” PB Corkum - US Patent 4,612,641 Filing date May 18, 1984, Grant date Sept 16, 1986; Canada CA1,241,420 Filing date May 18, 1985, Pub Aug 30, 1988
3. “Coherent switch of currents in semiconductors”, PB Corkum, HC Liu - US Patent 5,459,604, Filing Date July 22, 1994, Grant Oct 17, 1995
4. “Methods for creating optical structures in dielectrics using controlled energy deposition”, O Bourne, D Rayner, P Corkum, M Mehendale, AY Naumov - US Patent 6,884,960, Filing date Aug 21, 2001, Pub April 26, 2005
5. “Method and apparatus for repair of defects in materials with short laser pulses”, PB Corkum, E Dupont, HC Liu, X Zhu - US Patent 6,878,900, Filing date Jan 25, 2001, Grant date April 12, 2005
6. “Method of fabricating sub-micron structures in transparent dielectric materials”, R Bhardwaj, D Rayner, P Corkum, C Hnatovsky, R Taylor - US Patent 7,033,519B2, Filing Date May 8, 2003, Grant date April 25, 2006
7. “Fabrication of long range periodic nanostructures in transparent or semitransparent dielectrics”, R Taylor, P Corkum, R Bhardwaj, E Simova, D Rayner, C Hnatovsky – US Patent 7438824, Filing Date March 24, 2006, Grant date Oct 21, 2008
8. “Ionization with femtosecond lasers at elevated pressure” AV Loboda, P Corkum, D Rayner - US Patent 9,165,753, Filing date Dec 4, 2012, Grant date Oct 20, 2015
9. “Apparatus and Method for Tunable Generation of Coherent Radiation”, G Vampa, P

Corkum, T Brabec, - US Patent 20,160,149,371 Filing date Nov 10, 2015, Pub date May 26, 2016

10. "Fabrication of long-range periodic nanostructures in glass", D Rayner, P Corkum, R Bhardwaj, E Simova, R Taylor, C Hnatovsky – CA Patent CA2512327C, Filing date July 19, 2015, Grant date July 12, 2016
11. "Apparatus and method for generation of high harmonics from silicon", G Vampa, PB Corkum – US Patent 9746748 B2, Filing date Oct 28, 2016, Grant date August 29, 2017

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1. P. B. Corkum and M. Perry, editors, Short Wavelength V, Physics with Intense Laser Pulses, Optical Society of America. (1993)
2. F. Krausz, G. Korn. P. B. Corkum and I. A. Walmsley, editors, Ultrafast Optics IV, Springer NY. (2003)
3. P. B. Corkum, D. Jonas, R. J. D. Miller, and A. M Weiner, editors, Ultrafast Phenomena XV, Springer Series in Chemical Physics 88. Springer, NY pp 680-683 (2006)
4. P. B. Corkum, S. de Silvestri, K. Nelson, E. Riedle and R. Schoenlein, editors, Ultrafast Phenomena, Springer Series in Chemical Physics 92. Springer, NY pp 69-71 (2008)
5. P.B. Corkum and M. Freeman, Guest Editors, Special issue on Ultrafast Science, Physics in Canada, **65** (no. 2) April-June (2009)
6. P.B. Corkum, Guest Editor, Celebrating fifty years of the laser and a Canadian connection to the 2010 Nobel Prize in Physics, Physics in Canada, Vol. 66 No.4, (2010)

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3. M. Yu. Ivanov and P. B. Corkum, "Symmetry Breaking and the Control of Harmonics with Strong Short Laser Pulses, in Super Intense Laser-Atom Physics, B. Piraux, editor, Pergamon Press (1993)
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 7. P. B. Corkum, “Attosecond Science”, in Attosecond Physics, L. Plaja, R. Torres and A. Zair, editors, Springer Series in Optical Sciences, 117, Springer, NY. PP 1-8 (2013)

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2. P. B. Corkum, A. J. Alcock, D. J. James, K. J. Andrews, K. E. Leopold, D. F. Rolland and J. C. Samson, "Recent Developments in High Power CO₂ Laser Mode-Locking and Pulse Selection", in Laser Interaction and Related Plasma Phenomena, Vol. 4 (Eds. H. J Schwarz and H. Hora) Plenum Publishing Co. pp 143-160 (1977)
3. P. B. Corkum and A. J. Alcock, "Generation and Amplification of Short 10 μ m Pulses", in Picosecond Phenomena (Eds. C. V. Shank, E. P. Ippen and S. L. Shapiro (Pub. Springer-Verlag) pp308-312 (1978)
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5. P. B. Corkum, and R. S. Taylor, "Picosecond Gain and Kenetic Studies in XeCl, XIIIth International Quantum Electronics Conference, Munich (1982), Appl. Phys. B 28, 248 (1982)
6. P. B. Corkum and D. Keith, "Controlled Switching of Infrared Radiation on Semiconductor Etalons", in proceedings of 3rd Int. Conf on Infrared Physics, Zurich, Switzerland, 23-27 July (1984)
7. P. B. Corkum, "High Power Picosecond Pulses in the Infrared", in Ultrafast Phenomena IV (Ed. D. Autin & K. Eisenthal, published by Springer-Verlag) pp. 38-41 (1985)
8. P. B. Corkum, "Very High Power Laser Pulses", in Laser Acceleration of Particle, (Eds., Joshi and Katsouleus) AIP Conf. Proc. No. 130, Published by AIP, New York, pp. 493-504 (1985)
9. P. B. Corkum and C. Rolland, "High Energy Picosecond 10 μ m Pulses", in Proc. SPIE 664, pp. 212-216 (1986)
10. P. B. Corkum, C. Rolland and T. Srinivasan-Rao, "Supercontinuum Generation in Gases; A High Order Nonlinear Optics Phenomenon", in Ultrafast Phenomena V, Springer-Verlag, N.Y. pp. 149-152 (1986)
11. N. K. Sherman, P. B. Corkum and T. Srinivasan-Rao, "Photoelectrons from picosecond laser pulses on Mg", in Proc. SPIE 664, pp. 74-77 (1986)
12. N. K. Sherman and P. B. Corkum, "Progress Towards A Laser Accelerator", in New Developments in Particle Acceleration Techniques, ed. S. Turner, CERN 87-11 (CERN, Geneva, 1987) Vol. II, pp. 685-687

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14. P. B. Corkum and C. Rolland, "Interaction of high-power, femtosecond pulses with gases", in Proc. SPIE, 913, pp. 153-158, (1988)
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16. P. B. Corkum and N. H. Burnett, "Multiphoton Ionization for the Production of X-ray Laser Plasmas", in Short Wavelength Coherent Radiation: Generation and Applications edited by R. W. Falcone and J. Kirz p. 225 (1988)
17. D. Strickland and P. B. Corkum, "Short Pulse Self-Focusing" in Proc. SPIE, 1413, pp. 54-58, (1991)
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20. M. Laberge, P. Dietrich and P. B. Corkum, "Inertially Confined Molecular Ions" in Ultrafast Phenomena VIII, (1992)
21. P. B. Corkum, "Plasma Physics at the Atomic Level", in Short Wavelength V, Physics with Intense Laser Pulses, M. J. Perry and P. B. Corkum, editors, p. 83 (1993)
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