

Ming-Chang Chen (陳明彰)

National Tsing Hua University, Institute of Photonics Technologies
No. 101, Section 2, Kuang-Fu Road, Hsinchu, Taiwan 30013, R.O.C
mingchang@mx.nthu.edu.tw, +886-3-5162436

PERSONNEL INFORMATION

Birthdate: 1980/03/28

Age: 40 years old

Home address: No. 2, Ln. 175, Huaxing St., Fengshan Dist., Kaohsiung City 830, Taiwan

Contact phone number: +886-910703816

CURRENT POSITION AND RELEVANT EXPERIENCE

Associate Professor, Institute of Photonics Technologies, National Tsing-Hua University	Aug, 2018 ~ present
Adjunct Associate Professor in Department of Physics, National Tsing-Hua University	Oct, 2016 ~ present
Assistant Professor, Institute of Photonics Technologies, National Tsing-Hua University	Feb, 2013~ Aug, 2018
Postdoctoral Research Associate, JILA, University of Colorado at Boulder, CO, USA	Jun, 2012~ Jan, 2013
Research Assistant, JILA, University of Colorado at Boulder, CO, USA	Jan, 2007~ May, 2012
Ph.D. Visiting, Photonic Institute, Vienna University of Technology /Baltuška group	June, 2010~Dec, 2011

EDUCATION

Ph.D. in Physics	University of Colorado at Boulder, CO, USA	May, 2012
M.S. in EO Eng.	National Chiao Tung University (NCTU), Taiwan	2004
B.S. in Physics	National Tsing Hua University (NTHU), Taiwan	2002

RESEARCH AREAS

High Power Ultrafast Laser Systems, High Harmonic Generation (HHG), Attosecond Generation and Measurement, Ultrafast Dynamics, EUV Imaging

AWARDS AND HONORS

Ta-You Wu Memorial Award (科技部吳大猷先生紀念獎)	2020
Future Tech (未來科技突破獎)	2019
MOST Young Scholar Fellowship (年輕學者獎/哥倫布計畫)	2019~2023
NTHU EECS : Young Scholar Outstanding Research Award (清華大學電機資訊學院新進人員研究獎)	2016
NTHU Young Scholar Outstanding Research Award (清華大學新進人員研究獎)	2016

LIST OF ALL JOURNAL PUBLICATIONS

1. Ming-Shian Tsai, An-Yuan Liang, Chia-Lun Tsai, Po-Wei Lai, Ming-Wei Lin, Ming-Chang Chen*, “Nonlinear compression toward high-energy single-cycle pulses by cascaded focus and compression”, Tsai et al., *Science Advances* 8, eabo1945 (2022).
2. Kuang-Yu Chang, Long-Cheng Huang, Koji Asaga, Ming-Shian Tsai, Laura Rego Cabezas, Pei-Chi Huang, Hiroki Mashiko, Katsuya Oguri, Carlos Hernandez-Garcia, and Ming-Chang Chen*, “High-Order Nonlinear Dipole Response Characterized by Extreme-Ultraviolet Ellipsometry”, *Optica*, 8(4), 484 (2021)
3. Pei-Chi Huang, Jen-Ting Huang, Po-Yao Huang, Kuang-Yu Chang, Ming-Chang Chen*, “Progress to provide tunable polarization of isolated attosecond pulses”, *Review of Laser Engineering*, Vol.48, No.4 (2020)
4. Hiroki Mashiko, Ming-Chang Chen, Koji Asaga, Akihiro Oshima, Ikufumi Katayama, Jun Takeda, Tadashi Nishikawa, and Katsuya Oguri, “Spatially resolved spectral phase interferometry with an isolated attosecond”, *Optics Express*, 28, 21025 (2020)
5. Chia-Lun Tsai, Yi-Hsun Tseng, An-Yuan Liang, Ming-Wei Lin, Shang-Da Yang*, Ming-Chang Chen*, “Generation and nonlinear compression of intense optical pulse at 1.55 μm by multiple plate continuum”, *Journal of Lightwave technology*, 37, 5100 (2019)
6. Pei-Chi Huang*, Carlos Hernández-García, Jen-Ting Huang, Po-Yao Huang, Laura Rego, Chih-Hsuan Lu, Shang-Da Yang, Luis Plaja, A. H. Kung, Ming-Chang Chen*, “Realization of Polarization Control in High-order Harmonic Generation”, *Journal of Selected Topics in Quantum Electronics [Invited]*, 2019.2919777 (2019)
7. Lu, C.-H., Wu, W.-H., Kuo, S.-H., Guo, J.-Y., Chen, M.-C., Yang, S.-D., & Kung, A. H. (2019), “Greater than 50 times compression of 1030 nm Yb:KGW laser pulses to single-cycle duration” *Optics Express*, 27(11), 15638 (2019)

8. Cheng Jin*, Ming-Chang Chen, Hung-Wei Sun, and C D Lin, "Extension of water-window harmonic cutoff by laser defocusing-assisted phase matching", *Optics Letters*, 43(18), 4433 (2018).
9. Pei-Chi Huang*, Carlos Hernández-García, Jen-Ting Huang, Po-Yao Huang, Chih- Hsuan Lu, Laura Rego, Daniel D. Hickstein, Jennifer L. Ellis, Agnieszka Jaron- Becker, Andreas Becker, Shang-Da Yang, Charles G. Durfee, Luis Plaja, Henry C. Kapteyn, Margaret M. Murnane, A. H. Kung, Ming-Chang Chen*, "Polarization control of isolated high-harmonic pulses", *Nature Photonics*, 12, 349 (2018)
10. Dimitar Popmintchev*, Benjamin R. Galloway, Ming-Chang Chen, Franklin Dollar, Christopher A. Mancuso, Amelia Hankla, Luis Miaja-Avila, Galen O'Neil, Justin M. Shaw, Guangyu Fan, Skirmantas Ališauskas, Giedrius Andriukaitis, Tadas Balčiūnas, Oliver D. Mücke, Audrius Pugzlys, Andrius Baltuška, Henry C. Kapteyn, Tenio Popmintchev, Margaret M. Murnane, "Near and extended edge X-ray absorption fine structure spectroscopy using ultrafast coherent high harmonic supercontinua", *Physical Review Letters*, 120, 093002 (2018).
11. Yi-Sha Ku*, Wei-Ting Wang, Yi-Chang Chen, Ming-Chang Chen, Chia-Liang Yeh, Chun-Wei Lo, "Development of extreme ultraviolet scatterometer using multiple orders of high-harmonic generation," *J. Micro/Nanolith. MEMS MOEMS*, 17, 014001 (2018).
12. Sun, H.-W., Huang, P.-C., Tzeng, Y.-H., Huang, J.-T., Lin, C. D., Jin, C., & Chen, M.-C*, "Extended phase matching of high harmonic generation by plasma-induced defocusing", *OPTICA*, 4, 976. (2017)
13. KU Y.-S.*, Yeh C.-L., Chen Y.-C., Lo C.-W., Wang W.-T., Chen M.-C. "EUV scatterometer with a high-harmonic-generation EUV source", *Optics Express*, 24(24), 28014 (2016)
14. Dimitar Popmintchev, Carlos Hernández-García, Franklin Dollar, Christopher Mancuso, Jose A. Pérez-Hernández, Ming-Chang Chen, Amelia Hankla, Xiaohui Gao, Bonggu Shim, Alexander L. Gaeta, Maryam Tarazkar, Dmitri A. Romanov, Robert J. Levis, Jim A. Gaffney, Mark Foord, Stephen B. Libby, Agnieszka Jaron-Becker, Andreas Becker, Luis Plaja, Margaret M. Murnane, Henry C. Kapteyn, Tenio Popmintchev*, "Ultraviolet surprise: Efficient soft x-ray high-harmonic generation in multiply ionized plasmas", *Science*, 350, 1225 (2015)
15. Po-Yen Hsiao, Chia-Lun Tsai, Ming-Chang Chen, Yen-Yin Lin, Shang-Da Yang, and Ann-Shyn Chiang*, "Non-invasive manipulation of Drosophila behavior by two-photon excited red-activatable channelrhodopsin", *Biomedical Optics Express*, 6, 4344 (2015)
16. C. Mancuso, D. D. Hickstein*, P. Grychtol, R. Knut, O. Kfir, X.-M. Tong, F. Dollar, D. Zusin, M. Gopalakrishnan, C. Gentry, E. Turgut, J. L. Ellis, M.-C. Chen, A. Fleischer, O. Cohen, H. C. Kapteyn, and M. M. Murnane, "Strong-field ionization with two-color circularly polarized laser fields" to be published in *Physical Review A* (2014).
17. Lu, C.-H., Tsou, Y.-J., Chen, H.-Y., Chen, B.-H., Cheng, Y.-C., Yang, S.-D., M.-C. Chen, C. C. Hsu, and A H Kung*, "Generation of intense supercontinuum in condensed media", *OPTICA*, 1(6), 400 (2014)
18. M.-C. Chen, C. Mancuso, C. Hernández-García, F. Dollar, B. Galloway, D. Popmintchev, B. Langdon, A. Aude, P.-C. Huang, B.C. Walker, L. Plaja, A. Jaron-Becker, A. Becker, M. M. Murnane*, H. C. Kapteyn, T. Popmintchev, "Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers", *Proceedings of the National Academy of Sciences*, DOI: doi: 10.1073/pnas.1407421111 (2014)
19. C.-C. Chen, Y.-S. Chen, C.-B. Huang, M.-C. Chen, Shang-Da Yang*, "Non-iterative data inversion of phase retrieval by omega oscillating filtering for optical arbitrary waveform measurement" *Optics Letters* 38, 2011 (2013)
20. T. Popmintchev, M.-C. Chen, D. Popmintchev, P. Arpin, S. Brown, S. Ališauskas, G. Andriukaitis, T. Balčiūnas, O. Mücke, A. Pugzlys, A. Baltuška, B. Shim, S. E. Schrauth, A. Gaeta, C. Hernández-García, L. Plaja, A. Becker, A. Jaron-Becker, M. Murnane*, and H. Kapteyn, "Bright Coherent Ultrahigh Harmonics in the keV X-Ray Regime from Mid-Infrared Femtosecond Lasers", *Science* 336, 1287 (2012)
21. G. Andriukaitis, T. Balčiūnas, S. Ališauskas, A. Pugžlys*, A. Baltuška, T. Popmintchev, M.-C. Chen, M.M. Murnane, H.C. Kapteyn, "90-GW Peak-Power Few-Cycle Mid-IR Pulses from an Optical Parametric Amplifier", *Optics Letters*, 36, 2755 (2011)
22. M.-C. Chen, P. Arpin, T. Popmintchev, M. Gerrity, B. Zhang, M. Seaberg, M.M. Murnane* and H.C. Kapteyn, "Bright, Coherent, Ultrafast Soft X-Ray Harmonics Spanning the Water Window from a Tabletop Source", *Physical Review Letters* 105, 173901(2010)
23. T. Popmintchev, M.-C. Chen, P. Arpin, M.M. Murnane, and H.C. Kapteyn*, "The Attosecond Nonlinear Optics of Bright Coherent X-Ray Generation", *Nature Photonics* 4, 822 (2010)
24. M.-C. Chen*, M. R. Gerrity, S. Backus, T. Popmintchev, X. Zhou, P. Arpin, X. Zhang, H.C. Kapteyn and M. M. Murnane, "Spatially Coherent, Phase Matched, High-Order Harmonic EUV Light source at 50 kHz", *Optics Express* 17, 17376 (2009)
25. T. Popmintchev, M.-C. Chen, A. Bahabad, M. Gerrity, P. Sidorenko, I.P. Christov, M. M. Murnane*, H. C. Kapteyn, "Phase Matching of High Harmonics Generation in the Soft and Hard X-ray Regions of the Spectrum", *Proceedings of the National Academy of Sciences* 106 (26), 10516 (2009)

26. T. Popmintchev*, M.-C. Chen, O. Cohen, M. E. Grisham, J. J. Rocca, M. M. Murnane, and H. C. Kapteyn, "Extended Phase Matching of High Harmonics Driven by Mid-Infrared Light", *Optics Letters* 33, 2128 (2008).
27. Jung Y. Huang, Liu S. Li, and M.-C. Chen, "Probing Molecular Binding Effect from Zinc Oxide Nanocrystal Doping in Surface-Stabilized Ferroelectric Liquid Crystal with Two-Dimensional Infrared Correlation Technique", *The Journal of Physical Chemistry C*, 112, 5410 (2008)
28. M.-C. Chen, Jung Y. Huang*, Qiantso Yang, C. L. Pan, and Jen-Inn Chyi, "Freezing phase scheme for fast adaptive control and its application to characterization of femtosecond coherent optical pulses reflected from semiconductor saturable absorber mirrors", *Journal of the Optical Society of America B*, 22, 1134 (2005)
29. M.-C. Chen, J.Y. Huang* and L.J. Chen, "Coherent control multiphoton processes in semiconductor saturable Bragg reflector with freezing phase algorithm", *Applied Physics B*, 80, 333. (2005)

PATENTS

- M.-C. Chen*, K.-Y. Chang, P.-C. Huang, "EUV SPECTROSCOPIC POLARIMETER", 2022/04/26, US Patent 11,313,727 (2022)
- Sun, H.-W., Huang, P.-C., M.-C. Chen*, "High order harmonic generation optimization system and method in tight focusing geometry", Taiwan ROC Patent 106140050 (2018).
- Sun, H.-W., Huang, P.-C., M.-C. Chen*, "HIGH ORDER HARMONIC GENERATION OPTIMIZATION SYSTEM AND METHOD IN TIGHT FOCUSING GEOMETRY", US Patent 10,379,421 (2019)
- T Popmintchev, M.-C. Chen, A Bahabad, MM Murnane, HC Kapteyn, "Method for phase-matched generation of coherent soft and hard x-rays using IR lasers", US Patent US8462824B2 (2013).

SELECTED PRESENTATIONS

1. **Invited Talk:** Ming-Chang Chen, "Generation of intense single-cycle pulses by CAscaded foCus ANd comprESSION (CASCADE)", 12th Asian Symposium on Intense Laser Science, Singapore, Dec (2022)
2. **Contributed Talk:** Ming-Shian Tsai, An-Yuan Liang, Chia-Lun Tsai, Po-Wei Lai, Ming-Wei Lin, and Ming-Chang Chen*, "Nonlinear compression towards high-energy single-cycle pulses by cascaded focusing and compressing", CLEO, 15 – 20 May, San Jose, California, USA (2022).
3. **Contributed Talk:** An-Yuan Liang, Ming-Shian Tsai, Yu-Zhi Fu, Yu-En Chien, Ming-Chang Chen*, "Generation of isolated attosecond EUV pulses driven by a post-compressed Yb laser", ATTO VIII, 11-15 July, Orlando, Florida USA (2022).
4. **Contributed Talk:** Ming-Shian Tsai, An-Yuan Liang, Chia-Lun Tsai, Po-Wei Lai, Ming-Wei Lin and Ming-Chang Chen*, "Efficient single-cycle pulse compression of millijoule energy ytterbium femtosecond pulses", Ultrafast Phenomena, 18 July - 22 July, Quebec, Canada (2022).
5. **Invited Talk:** Kuang-Yu Chang, Long-Cheng Huang, Koji Asaga, Ming-Shian Tsai, Pei-Chi Huang, Laura Rego, Hiroki Mashiko, Katsuya Oguri, Carlos Hernandez-Garcia, Ming-Chang Chen*, "High-Order Nonlinear Dipole Response Characterized by Extreme-Ultraviolet Ellipsometry", CLEO-PR, 31 July - 6 Aug., Sapporo, Japan (2022)
6. **Contributed Talk:** Chia-Lun Tsai, An-Yuan Liang, Liang-Xian Xie, Shih-Cheng Liu, Po-Wei Lai, Ming-Shiang Tsai, Ming-Wei Lin, and Ming-Chang Chen*, "High-energy, sub-8 fs green pulse generation", CLEO-PR, 31 July - 6 Aug., Sapporo, Japan (2022).
7. **Contributed Talk:** Ming-Chang Chen, "High-Harmonic Dipole Response Characterized by Ellipsometry", Ultrafast Phenomena, Nov. 16-19 (2020)
8. **Contributed Talk:** Ming-Chang Chen, "High-Harmonic Dipole Response Characterized by Ellipsometry", OSA High-brightness Sources and Light-driven Interactions Congress, 16-20 Nov. (2020)
9. **Invited Talk:** Ming-Chang Chen, "A complete solution and its physical mechanism for polarization control of high-harmonic attosecond pulses", ALPS2020, Japan (2020)
10. **Invited Talk:** Ming-Chang Chen, "Realization of Polarization Control in High-order Harmonic Generation : the role of the atomic phase", LPHY'19, July 8, South Korea, (2019)
11. **Invited Talk:** Ming-Chang Chen, "Polarization Control of Isolated High Harmonic Pulses" CLEO/Europe, June, Munich, Germany, (2019)
12. **Invited Talk:** Ming-Chang Chen, "Extended phase matching of high harmonic generation by plasma-induced defocusing", Riken on Oct. 10, and Oct. 12 on NTT Basic basic research laboratories, Japan (2018)

13. **Invited Talk:** TSMC Honorary Speech: Coherent EUV Light Generation and Its Application on Nanometrology, Oct. 4 (2018)
14. **Invited Talk:** Ming-Chang Chen , “Control of the Photon Energy and Polarization of Tabletop High-Order Harmonic Generation”. June 20, MAX-BORN-INSTITUT, Berlin, Germany (2017)
15. **Invited Talk:** Generation of Isolated, Arbitrarily Polarized Attosecond Pulses, Ming-Chang Chen*, July 2-7, 2017, Xi'an, China (2017)
16. **Contributed Talk:** Pei-Chi Huang*, Ren-Ting Huang, Bo-Yao Huang, Chih-Hsuan Lu, Daniel D. Hickstein, Jennifer L. Ellis, Carlos Hernandez-Garcia, A. H. Kung, Shang-Da Yang, Henry C. Kapteyn, Margaret M. Murnane, Charles G. Durfee, Ming-Chang Chen, Generation and Characterization of Isolated, Circularly Polarized, Attosecond Pulses, CLEO EU 2017, 25-29 June in Munich (ICM), Germany (2017)
17. **Contributed Talk:** Generation of octave-spanning intense supercontinuum from Yb:doped solid-state lasers in multiple thin plates, Chih-Hsuan Lu, Wei-Hsin Wu, Shiang-He Kuo, Yi-Hsun Tseng, Chia-Lun Tsai, Shang-Da Yang, Ming-Chang Chen, A. H. Kung, CLEO EU 2017, 25-29 June in Munich (ICM), Germany (2017)
18. **Invited talk,** Ming-Chang Chen, “Isolated, Arbitrarily Polarized, Attosecond Pulse Generation” the 8th International Symposium on Ultrafast Phenomena and Terahertz Waves (ISUPTW 2016), CIGIT, Chongqing, Oct. 11 (2016)
19. **Postdeadline talk,** Pei-Chi Huang, Chih-Hsuan Lu, Carlos Hernandez-Garcia, Ren-Ting Huang, Po-Shu Wu, Daniel D. Hickstein, Daniel Thrasher, Jennifer L. Ellis, A. H. Kung, Shang-Da Yang, Agnieszka Jaron-Becker, Andreas Becker, Henry C. Kapteyn, Margaret M. Murnane, Charles G. Durfee, Ming-Chang Chen, “Isolated, Circularly Polarized, Attosecond Pulse Generation”, Ultrafast Phenomena, Santa Fe, July (2016)
20. **Contributed Talk:** Hung-Wei Sun, Pei-Chi Huang, Yi-Hsuan Tzeng, Ren-Ting Huang, Ming-Chang Chen*, Cheng Jin, C.D. Lin, Extended phase matching of high harmonic generation driven by truncated beams in tight focusing geometry, Extended phase matching of high harmonic generation driven by truncated beams in tight focusing geometry, Ultrafast Phenomena, July 17-22, Santa Fe, USA (2016).
21. **Postdeadline talk,** Pei-Chi Huang, Chih-Hsuan Lu, Carlos Hernandez-Garcia, Ren-Ting Huang, Po-Shu Wu, Daniel D. Hickstein, Daniel Thrasher, Jennifer L. Ellis, A. H. Kung, Shang-Da Yang, Agnieszka Jaron-Becker, Andreas Becker, Henry C. Kapteyn, Margaret M. Murnane, Charles G. Durfee, Ming-Chang Chen, “Isolated, Circularly Polarized, Attosecond Pulse Generation”, CLEO, San Jose, June (2016)
22. **Contributed Talk:** Hung-Wei Sun*, Pei-Chi Huang, Yi-Hsuan Tzeng, Ren-Ting Huang, Ming-Chang Chen, Chii-Dong Lin, Cheng Jin, Extended phase matching of high harmonic generation driven by truncated beams in tight focusing geometry, CLEO 2016, June 5-10, San Jose, USA (2016).
23. **Contributed Talk:** P. C. Huang*, C. H. Lu, B. H. Chen, H. Y. Chen, S. D. Yang, M.-C. Chen, and A. H. Kung, EUV continuum from compressed multiple thin plate supercontinuum, CLEO 2016, June 5-10, San Jose, USA (2016).
24. **Contributed talk:** Daniel Thrasher, Chih-Hsuan Lu, Chia-Lun Tsai, Yi-Hsun Tseng , Ming-Chang Chen, Shang-Da Yang , A. H. Kung , Intense coherent supercontinuum via IR pulse propagation in multiple thin plates, CLEO 2016, June 5-10, San Jose, USA.
25. **Postdeadline talk:** EUV continuum generated from a compressed supercontinuum pulse produced in a set of thin fused silica plate, Pei-Chi Huang*, Chih-Hsuan Lu, Hong-Yu Chen, Bo-Han Chen, Ming-Cheng Chen, and A.H. Kung, Ultrafast optics, 16-21 August, 2015, Beijing, China [Pei-Chi Huang : My PhD student]
26. **Poster:** Widely tunable high harmonic generation by truncated beams, Hung-Wei Sun*, Pei-Chi Huang, Yi-Hsuan Tzeng, Ren-Ting Huang, Peng Ye, Ming-Chang Chen, Ultrafast optics, 16-21 August, 2015, Beijing, China.
27. **Contributed talk:** Chih-Hsuan Lu, Yu-Jung Tsou, Hong-Yu Chen, Bo-Han Chen, Yu-Chen Cheng, Pei-Chi Huang, Shang-Da Yang, Ming-Cheng Chen*, and A.H. Kung, Generation of Intense Supercontinuum in Condensed Media, ATTO2015, July 6-10, 2015 in Saint-Sauveur, Quebec, Canada.
28. **Contributed talk,** Hung-Wei Sun, Ming-Chang Chen, Attochirp-free high-order harmonic generation beyond the atomic unit pulse duration, OPTIC, Nov. 15, Taichung, Taiwan (2014)
29. **Invited talk,** M.-C. Chen, Bright Isolated Attosecond Soft X-Ray Pulses, Frontiers in Attosecond Lasers and Sciences Dec. 11 – 12, IS-PALD 2014 Hsinchu, Taiwan (2014)
30. **Invited talk,** M.-C. Chen, Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers, International Workshop on Strong Field Physics and Ultrafast Phenomena(SFPUP 2014), 31st Oct-4th Nov, Zhangjiajie, China, (2014)
31. **Invited talk,** M.-C. Chen, Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers, 2014 Frontiers in Optics/Laser Science Conference, 19-23 October 2014, Tucson, Arizona, USA.
32. **Invited talk,** M.-C. Chen, Bright Isolated Attosecond Soft X-Ray Pulses, Is-PALD, 2014, Sep. 2-5, Taiwan.

33. **Contributed talk**, Ming-Chang Chen, Christopher A. Mancuso, Carlos Hernandez-Garcia, Franklin Dollar; Benjamin Galloway, Dimitar Popmintchev, Benjamin Langdon, Amelie Auger, P. C. Huang, Barry C. Walker, Luis Plaja, Agnieszka Jaron-Becker, Andreas Becker, Margaret Murnane, Henry Kapteyn, Tenio Popmintchev, Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers, 19th International Conference on Ultrafast Phenomena Okinawa Convention Center, July 7 (Mon) - 11 (Fri), 2014
34. **Contributed talk**, Generation of Bright Isolated Attosecond Soft X-Ray Pulses Driven by Multi-Cycle Mid-Infrared Lasers, Christopher A. Mancuso; Ming-Chang Chen; Carlos Hernandez-Garcia; Franklin Dollar; Benjamin Galloway; Dimitar Popmintchev; Benjamin Langdon; Amelie Auger; P. C. Huang; Barry C. Walker; Luis Plaja; Agnieszka Jaron-Becker; Andreas Becker; Margaret Murnane; Henry Kapteyn; Tenio Popmintchev, CLEO San Jose, June 8 – 13, 2014
35. **Contributed talk**, Theory of time-gated phase-matching for isolated attosecond soft x-ray pulse generation using mid-infrared lasers, Carlos Hernandez-Garcia; Ming-Chang Chen; Christopher Mancuso; Franklin Dollar; Benjamin Galloway; Dimitar Popmintchev; Pei-Chi Huang; Barry C. Walker; Tenio Popmintchev; Margaret Murnane; Henry Kapteyn; Luis Plaja; Agnieszka Jaron-Becker; Andreas Becker, CLEO San Jose, June 8 – 13, 2014
36. **Invited talk**, M.-C. Chen, Optics & Photonics Taiwan, International Conference Dec. 2013.
37. **Contributed talk**, Hung-Wei Sun, Po-Yao Huang, Chi-Cheng Chen, Wan-Tien Chao, Ming-Chang Chen, Shang-Da Yang and Chen-Bin Huang, “Generation of Half-Cycle linearly Polarized Electric Field Transient” Taiwan OPT conference.
38. **Contributed talk**, M.-C. Chen, “Microscopic-Macroscopic Picture of High Harmonic Generation to the keV X-ray Region” International Workshop for attosecond science and 3rd MCP-AS Workshop, Beijing, June 27, 2013.
39. **Invited talk**, M.-C. Chen, “The nonlinear optics of coherent X-ray generation: harness attosecond science”, EE IPT, NTHU, Taiwan, March 2012.
40. **Contributed talk**, Xiaoshi Zhang, Dan Adams, Sterling Backus, T. Popmintchev, M.-C. Chen, Paul Arpin, Michael Gerrity, Susannah Brown, Chris Mancuso, Chan La-O-Vorakiat, Q. Li, Emrah Turgut, M. Murnane, and H. Kapteyn, “Ultrafast X-ray “Laser” Advancing Nanophotonics and nanoelectronics towards unprecedented spatial and temporal resolutions,” Photonics Asia, Beijing, China, November 2012
41. **Contributed talk**, M.-C. Chen, T. Popmintchev, D. Popmintchev, P. Arpin, S. Brown, M. M. Murnane, H. C. Kapteyn, S. Ališauskas, G. Andriukaitis, T. Balciunas, A. Pugžlys, A. Baltuška, “Fully Spatially Coherent High Harmonic Beams in the keV Region of the Spectrum”, OSA Conference on Lasers and Electro-optics/ Quantum Electronics and Laser Science Conference (CLEO/QELS), San Jose, CA, May 2012. Paper JTh3I.1
42. **Contributed talk**, B. Shim, S. Schrauth, T. Popmintchev, M.-C. Chen, D. Popmintchev, S. Ališauskas, A. Pugžlys, A. Baltuška, M. Murnane, H. Kapteyn, A. Gaeta, “Role of Self-focusing in Bright Coherent X-Ray Generation by Mid-Infrared Driving Lasers”, OSA Conference on Lasers and Electro-optics/ Quantum Electronics and Laser Science Conference (CLEO/QELS), San Jose, CA, May 2012. Paper QTu3H.4.
43. **Contributed talk**, T. Popmintchev, D. Popmintchev, M.-C. Chen, J. Siqueira, C. Hernandez-Garcia, J. Perez-Hernandez, L. Plaja, A. Becker, A. Jaron-Becker, S. Ališauskas, G. Andriukaitis, A. Pugžlys, A. Baltuska, M. Murnane, H. Kapteyn, “Unified Microscopic-Macroscopic Picture of High Harmonic Generation from the VUV to the keV X-ray Region”, OSA Conference on Lasers and Electro-optics/ Quantum Electronics and Laser Science Conference (CLEO/QELS), San Jose, CA, May 2012. Paper CF1L.2.