# Biographical Sketch – Luca Argenti

Name Luca Argenti
Appointment Associate Professor
Department of Physics, 4111 Libra Drive
University of Central Florida, Orlando, Florida
tel: (407) 259-9917
e-mail: Luca.Argenti@ucf.edu

## (a) Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

| Undergraduate Institution(s) | Location | Major | Degree | Year |
|---|---|---|---|---|
| Scuola Normale Superiore di Pisa | Pisa (Italy) | Chemistry | Diploma | 2001 |
| Università di Pisa | Pisa (Italy) | Chemistry | Laurea | 2001 |

| Graduate Institution(s) | Location | Major | Degree | Year |
|---|---|---|---|---|
| Scuola Normale Superiore di Pisa | Pisa (Italy) | Chemistry | PhD | 2008 |

| Postdoctoral Institution(s) | Location | Area | Dates (years) |
|---|---|---|---|
| Stockholm University | Stockholm (Sweden) | Atomic Physics | 2009-2010 |
| Autonomous University of Madrid | Madrid (Spain) | AMO Physics | 2010-2015 |

## (b) Appointments

In reverse chronological order, list the individual's academic/professional appointments.

Associate Professor, University of Central Florida, Orlando, Florida, Aug. 2020 (ongoing)
Assistant Professor, University of Central Florida, Orlando, Florida, Mar. 22$^{st}$ 2016 - Aug 2020

## (c) Products *[this section may be titled **Publications** if only publications are listed]*

(i) List up to five (5) publications/products that are the **most current** ones related to your field

1. Vicent J Borràs, Jesús González-Vázquez, Luca Argenti, Fernando Martín, Attosecond photoionization delays in the vicinity of molecular Feshbach resonances, Science Advances **9**, eade3855 (2023). [IF=14.14]
2. Nicolette G Puskar, Yen-Cheng Lin, James D Gaynor, Maximilian C Schuchter, Siddhartha Chattopadhyay, Carlos Marante, Ashley P Fidler, Clare L Keenan, Luca Argenti, Daniel M Neumark, Stephen R Leone, Measuring autoionization decay lifetimes of optically forbidden inner valence excited states in neon atoms with attosecond noncollinear four-wave-mixing spectroscopy, Phys. Rev. A **107**, 033117 (2023). [IF=2.97]
3. Saad Mehmood, Eva Lindroth, Luca Argenti, Ionic coherence in resonant above-threshold attosecond ionization spectroscopy, Phys. Rev. A **107**, 033103 (2023) [IF=2.97]
4. Vyacheslav Leshchenko, Stephen J Hageman, Coleman Cariker, Gregory Smith, Antoine Camper, Bradford K Talbert, Pierre Agostini, Luca Argenti, Louis F DiMauro, Kramers–Kronig relation in attosecond transient absorption spectroscopy, Optica **10**, 142 (2023) [IF=10.64]
5. Sergio Yanez-Pagans, Coleman Cariker, Moniruzzaman Shaikh, Luca Argenti, Arvinder Sandhu, Multipolariton control in attosecond transient absorption of autoionizing states, Phys. Rev. A **105**, 063107 (2022) [IF=2.97]

(ii) List up to five (5) other significant publications/products.

1. Christian Ott, Andreas Kaldun, Luca Argenti, Philipp Raith, Kristina Meyer, Martin Laux, Yizhu Zhang, Alexander Blättermann, Steffen Hagstotz, Thomas Ding, Robert Heck, Javier Madroñero, Fernando Martín, Thomas Pfeifer, Reconstruction and control of a time-dependent two-electron wave packet, Nature 516, 374 (2014).
2. V Gruson, L Barreau, Á Jiménez-Galan, F Risoud, J Caillat, A Maquet, B Carré, F Lepetit, J-F Hergott, T Ruchon, L Argenti, R Taïeb, Fernando Martín, P Salières, Attosecond dynamics through a Fano resonance: Monitoring the birth of a photoelectron, Science 354, 734 (2016).
3. Jaco Fuchs, Nicolas Douguet, Stefan Donsa, Fernando Martin, Joachim Burgdörfer, Luca Argenti, Laura Cattaneo, Ursula Keller, Time delays from one-photon transitions in the continuum, Optica 7, 154 (2018).
4. Nathan Harkema, Coleman Cariker, Eva Lindroth, Luca Argenti, Arvinder Sandhu, Autoionizing polaritons in attosecond atomic ionization, Phys. Rev. Lett. 127, 023202 (2021).
5. Bejan Ghomashi, Nicolas Douguet, Luca Argenti, Attosecond intramolecular scattering and vibronic delays, Phys. Rev. Lett. 127, 203201 (2021).

**(d) Graduate teaching experience**

- OSE 6111 (Spring 2017, Spring 2018, Spring 2019)

**(e) Graduate students mentored (to completion, if applicable)**

- 2: Saad Mehmood and Coleman Cariker, Ph.D. in Physics, Graduated July 2022.
- 5: Andrew Chew (July 2020), Justin Reyes (Oct 2020), Marjan Khamesian (July 2016), Shima Gholam (April 2020), Chi Hong Yuen (May 2020)
- 16

**(f) Other synergistic activities related to Graduate Education**

1. Through 3 NSF grants and one DOE CAREER grant, I am developing state-of-the-art software for atomic and molecular ionization which is used to train students in atomic, molecular, and optical science.
2. Through an OR internal grant, I have developed a LaTeX-based software to generate randomized tests for students, which can be used both at the undergraduate and at the graduate level.
3. As chair of the Theoretical Atomic Molecular and Optical Community, from June 2020 to June 2022, I have radically revised the website by including information on the research profile of all the main theoreticians in the field in the United States.
4. As chair of the ATTO VIII conference, which was held on the main UCF Campus in Orlando, in July 2022, I promoted the participation and networking of URM students to the field of attosecond science.
5. Before joining UCF, I Spring School on New Computational Methods for Attosecond Molecular Processes (March 2015, ZCAM, Zaragoza, Spain).