

# C.J. EFTHIMIOU

## Professional Preparation

- Cornell University, Mathematical Physics, PhD, August 1994
- Cornell University, Theoretical Physics, MSc, August 1991
- ELKEPA Technical Institution, Programming Diploma, August 1988
- University of Athens, Physics, BSc, February 1988

## Appointments

- Associate Professor of Physics, University of Central Florida, August 2009–.
- Assistant Professor of Physics, University of Central Florida, August 2003–2009.
- Visiting Assistant Professor of Physics, University of Central Florida, August 2000–July 2003.
- Visiting Scientist, Newman Laboratory of Nuclear Physics, Cornell University, April 1998–May 2000.
- Visiting Scientist, Cornell/Columbia University, Sept 1998–Sept 1999.
- Visiting Scientist, Department of Mathematics, Harvard University, June 1997–March 1998.
- Research Associate, Department of Physics, Tel Aviv University, October 1995 – September 1997.
- Lecturer, Department of Physics, Cornell University, August 1994 – September 1995.

## Selected Publications

- “Introduction to Functional Equations and Inequalities”, book, submitted to AMS.
  - (with R.A. Llewellyn), “Hollywood Blockbuster: Unbegrenzter Spa--begrenzte naturwissenschaftliche Bildung”, Praxis derNaturwissenschaften, Heft 7/56, Oktober 2007, 21. (English translation available at <http://arxiv.org/abs/0707.1167>) Invited article.
  - (with M. Johnson), “Domino Waves”, SIAM Review **49** (2007) 111.
  - (with S. Gandhi\*), “Inversion of Gamow’s Formula and Inverse Scattering”, Am. J. Phys. **74** (2006) 638.
  - (with R.A. Llewellyn), “Avatars of Hollywood in Physical Science”, Physics Teacher **44** (2006) 28.
  - (with R.A. Llewellyn), “Addition Laws in Introductory Physics”, Eur. J. Physics **26** (2005) 441.
  - (with S. Gandhi\*) “The Ascending Double-Cone: A closer look at a familiar demonstration”, Eur. J. Phys. **26** (2005) 681.
  - (with S.A. Apikyan), “Geometric Properties of  $W$ -Algebras and the Toda Model”, Theoretical and Mathematical Methods, **138** (2004) 151.
  - (with S.A. Apikyan), “Remarks on  $A_2$  Toda Field Theory”, JETP Lett. **74** (2001) 569 [Pisma Zh. Ksp. Teor. Fiz. **74** (2001) 645].
  - (with S.A. Apikyan), “Minimal Models of CFT on  $\mathbb{Z}_N$ -Surfaces, Int. J. Mod. Phys. **A 12** (1997) 4291.
- \*undergrad student; several papers with undergrad students are in preparation.

## Synergistic Activities

- University Diversity Award, UCF, 2008.
- Committee on the Science Education for the Public, AAPT 2006—2009.
- UCF Undergrad Curriculum Committee; Physics Department Undergrad Committee. Member 2000–, Chair 2007–2008.
- Advising Award, University of Central Florida, Spring 2007. (Based on the performance of the past three years.)
- Scholarship on Teaching and Learning Award, University of Central Florida, Spring 2006.
- Teaching Excellence Award, College of Arts & Sciences, UCF, Spring 2005. (Based on the performance of the past three years.)
- Teaching Incentive Award, University of Central Florida, Spring 2005. (Based on the performance of the past four years.)
- 2004–2005 and 2005–2006 Marsh White Outreach Award; 2005 and 2006 Blake-Lilly Outreach Award; 2006  $\Sigma\Pi\Sigma$  Research Award; 2007 and 2008  $\Sigma\Pi\Sigma$  Project Award.
- Has been nominated by students and faculty for a National Physics Advising Award. (Pending)
- In Spring 2005, established a chapter of the Physics Honors Society  $\Sigma\Pi\Sigma$  at UCF. Current advisor of  $\Sigma\Pi\Sigma$ .

- SPS advisor. The local chapter has been one of the top 10% Outstanding Chapters. Chapter and members has won many awards.
- Has served as physics and math judge in State and local Science fairs. Also, served as a science judge for the 2005 UCF Undergraduate Research Showcase.
- 2002–2003 Outstanding Initiative Award for General Education at UCF.
- Trainer of the UCF mathematics team for the Putnam Mathematics Competition. Advisor and trainer of a team of students for the Mathematical Modelling Competition organized by COMAP. Trainer of an outstanding high school student for the International Math Olympiads.
- Currently supervising a group of several outstanding undergraduate students interested in theoretical physics. The students study theoretical research problems from various areas of physics. CE also supervises a student with disabilities who wants to become theoretical physicist.
- Has helped and supervised Middle and High School students in science projects (such as bicycle performance, rocket propulsion, etc).
- During the summer 1999, supervised and guided a gifted high school student in discovering the mathematics behind Rubick's cube.
- In 2000, created a Modern Physics Lab for Florida Southern College.
- Nominated by students and became a UCF Housing Faculty Mentor.
- In 1997, created a new journal in Mathematical Physics in behalf of the International Press publisher and served as a Managing Editor from June 1997 to March 1998. Personally involved in the creation and implementation of the journal (both hard copy and on-line); supervisor of the hard copy at all stages of the production (typesetting, manuscript proof-reading, printing, distribution, promotion, blue-line proof-reading); creator and maintainer of the on-line pages.
- Editor and advisor (2000–2001) of World Scientific Publishing Company.

**Graduate Students** Dan Maronde (PhD, working on mathematical physics and physics education); Jared Gottesman (High School Teacher); Tim McGreevy (Assistant Prof, Embry-Riddle Aeronautical University).

**Undergrad Students** Has advised numerous undergrad students. Current students: Clinton Reece and Caleb Wiese (Integrable Models in QFT), Kevin Thomas (Physics Education), Alan Olejnik, Michael Mueller (Elementary String Theory), Adam Relevand (Elliptic Curves and Fermat's Last Theorem), Alejandro Villamizar (Theoretical Biophysics).

**Student Awards** My students have won numerous travel awards to participate in conferences and many awards for research and service. The most recent ones are: Astronaut Scholarship (Brian Glover), Goldwater Scholarship (Sohang Gandhi), National Leadership Award (Erin Riley, Sohang Gandhi, Brian Glover), National SPS Research Award (Sohang Gandhi), All-USA 2006 3rd Team (Sohang Gandhi), NSF Fellowship (Sohang Gandhi), 2007 and 2008 NSF Honorable mention (Pontus Ahlqvist), SPS Reporters' Award (Sergio Tafur), UCF Leadership Award (Erin Riley), 2nd oral presentation award in SESAPS 04 (Sohang Gandhi), 1st oral presentation award in SESAPS 05 and SESAPS 06 (Pontus Ahlqvist), 1st oral presentation in *Origins of Life Symposium* (Pontus Ahlqvist), 1st UCF poster award (Sohang Gandhi), SMART Award (Sohang Gandhi, Pontus Ahlqvist, Caleb Wiese), RAMP Award (Sohang Gandhi–twice, Pontus Ahlqvist–twice, Chris Lorcher, Caleb Wiese), APS Glover Studentship (Dan Maronde), HUGS Summer School fellowship (Dan Maronde), Lindau Physics Nobel Laureate Meeting (Dan Maronde); GTA Physics Award (Dan Maronde); NSF GK-12 Fellowship (Dan Maronde, Jared Gottesman); APS & SPS Physics & Society Fellowship (Kevin Thomas).

**Collaborators** T.J. Allen, Hobart and William Smith College; M. Ameduri, Cornell University; S. Apikyan, Yerevan State University; M. Barsamian, SUNY at Stony Brook; B. Gerganov, Cornell University; B. Greene, Columbia University; M. Hampton, University of Central Florida; M. Johnson, University of Central Florida; R.A. Llewellyn, University of Central Florida; D. Spector, Hobart and William Smith College; A. Winningham, University of Central Florida;

**Advisors** B. Greene, Columbia University; A. Lahanas, University of Athens; A. LeClair, Cornell University; C. Sonnenschein, Tel Aviv University; S.T. Yau, Harvard University.