

CURRICULUM VITAE: ANTHONY F. STARACE

(Revised 1 March 2008)

III. INVITED LECTURES PRESENTED AT MEETINGS

1. A.F. Starace, "The Quantum Defect Theory." *NATO Advanced Study Institute on Photoionization*, Carry-Le-Rouet, France, August 31-September 13, 1975, Edited by F. Wuilleumier (Plenum, New York, 1976), pp. 395-406.
2. A.F. Starace, "The Random Phase Approximation and the Theory of Atomic Photoionization." *8th Annual Meeting of the APS Division of Electron and Atomic Physics*, Lincoln, NE, 6-8 December 1976, Bull. Am. Phys. Soc. **21**, 1263 (1976).
3. A.F. Starace, "*Ab Initio*, Multichannel Quantum Defect, and Scattering Theory and Their Relationships." *Workshop on New Directions in Atomic Spectroscopy*, National Bureau of Standards, Washington, D. C., 21-22 April 1978.
4. A.F. Starace and S. Shahabi, "A Graphical Method for Calculating First Order Transition Matrices for Open-Shell Atoms in the Random Phase Approximation." *Nobel Symposium 46 on Many Body Theory of Atomic Systems*, Gothenburg, Sweden, 11-16 June 1979, Physica Scripta **21**, 368 (1980).
5. A.F. Starace, "Trends in the Theory of Atomic Photoionization." *VI International Conference on VUV Radiation Physics*, Charlottesville, Virginia, 2-6 June 1980, Applied Optics **19**, 4051 (1980).
6. A.F. Starace, "New Perspectives on Electron Correlations," *XII International Conference on the Physics of Electronic and Atomic Collisions*, Gatlinburg, Tennessee, 15-21 July 1982, Invited Papers and Progress Reports, S. Datz (ed.) (North-Holland, Amsterdam, 1982), pp. 431-446.
7. A.F. Starace, "Atomic Photoionization." *NATO Advanced Study Institute on Fundamental Processes in Energetic Atomic Collisions*, Maratea, Italy, 20 Sept. - 1 Oct. 1982, Edited by H. O. Lutz, J. S. Briggs, and H. Kleinpoppen (Plenum, New York, 1983), pp. 69-110.
8. A.F. Starace, "Potential Barrier Effects on Inner-Shell Absorption Spectra," *1982 Annual Meeting of the Optical Society of America*, Tucson, Arizona, 18-22 October.
9. A.F. Starace, "Recent Theoretical Developments in Atomic Photoionization," *1983 Gordon Conference on Atomic Physics*, New London, New Hampshire, 4-8 July.
10. A. F. Starace, "Effects of Electron Pair Correlations on Photoionization Processes," *International Workshop on Atomic and Molecular Photoionization*, Berlin, 25-26 July 1983.
11. A. F. Starace, "Photoionization as a Sensitive Probe of Many-Body and Spin-Dependent Interactions," *Workshop on an Advanced Soft X-Ray and Ultraviolet Synchrotron Source*, Berkeley, California, 13-15 November 1985.
12. A.F. Starace, "Electron Correlation Effects in Nonresonant Multiphoton Ionization Processes," *8th International Conference on Vacuum Ultraviolet Radiation Physics*, Lund, Sweden, 4-8 August 1986, Physica Scripta **T17**, 221 (1987).

III. INVITED LECTURES PRESENTED AT MEETINGS (continued)

13. A.F. Starace, "Theoretical Overview of Near-Threshold Photoionization," *Workshop on New Directions in Soft X-Ray Near Threshold Phenomena*, Asilomar Conference Center, Pacific Grove, CA, 1-4 March 1987.
14. A.F. Starace, "The Calculation of Photoionization Cross Sections," *Workshop on the Assessment of Atomic Data*, St. Catherine's College, Oxford University, 1-2 August 1987, in *Proceedings of the Atomic Data Workshop*, Edited by W. Eissner and A.E. Kingston (The Queen's University of Belfast, 1988), pp. 1-6.
15. A.F. Starace, "Hyperspherical Description of Two-Electron Systems," *NATO Advanced Study Institute on Fundamental Processes of Atomic Dynamics*, Maratea, Italy, 21 September-2 October 1987, Edited by J.S. Briggs, H. Kleinpoppen, and H.O. Lutz (Plenum, New York, 1988), pp 235-258.
16. A.F. Starace, "Dynamics of Collision Processes," *IXth DOE/BES Atomic Physics Program Workshop*, August 31-September 1, 1988, Bethesda, Maryland.
17. A.F. Starace, "Variational Calculation of High Order Multiphoton Processes in Atomic Hydrogen," *International Symposium on Atoms in Strong Fields*, 5-9 September 1988, Grainau, Germany.
18. A.F. Starace, "Multiphoton Detachment of H^- in a Static, Uniform Electric Field," *Workshop on the Physics of the Negative Hydrogen Ion*, Albuquerque, NM, 9-11 January 1990.
19. A.F. Starace, "Dynamics of Collision Processes," *XIth DOE Atomic Physics Program Workshop*, 15-16 November 1990, Albuquerque, NM.
20. A.F. Starace, "Long-Range Dipole Field Effects on H^- Detachment Processes Above the $H(n=2)$ Threshold," *Third U.S. - Mexico Atomic and Molecular Physics Symposium*, Cocoyoc, Mexico, 13-16 March 1991 (World Scientific, Singapore, 1991).
21. A.F. Starace, "Multiphoton Detachment Processes," Spring Meeting of the American Physical Society, 22-25 April 1991, Washington, D.C., *Bull. Am. Phys. Soc.* **36**, 1344 (1991).
22. A.F. Starace, "Adiabatic Treatments of Atoms in Strong Magnetic Fields," *Workshop on Hidden Crossings in Ion-Atom Collisions and Other Nonadiabatic Transitions*, Harvard-Smithsonian Institute for Theoretical Atomic and Molecular Physics, Cambridge, MA, 17-19 May 1991.
23. A.F. Starace, "Systematics of Doubly Differential Detachment Cross Sections for Fast H^- Ions on Rare Gas Targets," *XIIth International Symposium on Ion-Atom Collisions*, Gold Coast, Queensland, Australia, 18-19 July 1991.
24. A.F. Starace, "Uncovering Fundamental Physics Using Lasers and Negative Ions," *International Workshop on Lasers and Laser Applications*, Shanghai, PRC, 4-16 November 1991.
25. A.F. Starace, "Target Dependence of Near Threshold, Triply Differential ($e,2e$) Cross Sections," *JILA Workshop on New Developments in Two-Electron Atoms and Ions*, Boulder, CO, 22-25 July 1992.

III. INVITED LECTURES PRESENTED AT MEETINGS (continued)

26. A.F. Starace, "Dynamics of Collision Processes," *XIII DOE Atomic Physics Program Workshop*, Ithaca, New York, 15–16 October 1992.
27. A.F. Starace, "Target Dependence of Near Threshold, Triply Differential ($e, 2e$) Cross Sections," *International Symposium on ($e, 2e$) Collisions, Double Photoionization and Related Processes*, Paris, 15–17 July 1993.
28. A.F. Starace, "Overview of Coherent Control of Atomic Dynamics," *Gordon Conference on Atomic Physics*, Wolfeboro, NH, 2-7 July 1995.
29. A.F. Starace, "Rescattering Effects in Intense Field Photodetachment Processes," *Electron-Impact Symposium*, University of Nevada-Reno, 21-22 July 1995.
30. A.F. Starace, "Novel Doubly Excited States Produced in Negative Ion Photodetachment," *Oji International Seminar on Atomic and Molecular Photoionization*, Tsukuba, Japan, 4-7 September 1995.
31. A.F. Starace, "Laser Detachment of H^- and Negative Alkali Ions," *ITAMP Workshop on Multiparticle Atomic Systems in Intense Laser Fields*, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, 19-21 October 1995.
32. A.F. Starace, "Dynamics of Collision Processes," *XVI DOE Atomic Physics Program Workshop*, San Antonio, TX, 3-4 November 1995.
33. A.F. Starace, "Novel Doubly Excited States Produced in Negative Ion Photodetachment," *XX ICPEAC* (Vienna, Austria, 1997).
34. A.F. Starace, "Doubly-Excited Resonances in Negative Ion Photodetachment," *Asia Pacific Center for Theoretical Physics*, Seoul, Korea, 22 April 1998.
35. A.F. Starace, "Coherent Control of Photodetachment Using Short Pulse Lasers," *Asia Pacific Center for Theoretical Physics*, Seoul, Korea, 23 April 1998.
36. A.F. Starace, "Special Aspects of H^- Photodetachment," *Korean Physical Society Annual Meeting*, Seoul, Korea, 22-24 April 1998.
37. A.F. Starace, "Theoretical Studies of Atomic Negative Ions," *Symposium on Structure and Dynamics of Negative Atomic and Molecular Ions*, University of Aarhus, Denmark, 18-20 May 1998.
38. A.F. Starace, "Coherent Control of Atomic and Molecular Processes," *Workshop on the Role of Theory in AMO Physics*, Institute for Theoretical Atomic and Molecular Physics at the Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, 26-27 February 1999.
39. A.F. Starace, "Control of Intense Laser-Atom Processes with Strong Static Fields," *VIII International Conference on Multiphoton Processes*, Monterey, CA, 3-8 October 1999.
40. A.F. Starace, "Anisotropy-Induced Polarization Effects in Harmonic Generation by an Absorptive Medium," *NATO Advanced Research Workshop on "Super-Intense Laser-Atom Physics"*, Han-sur-Lesse, Belgium, 24-30 September 2000.
41. A.F. Starace, "Control of Intense Laser-Atom Processes with Static Electric and Magnetic Fields," *Fourth Asian International Seminar in Atomic and Molecular Physics*, Taipei, Taiwan, 13-18 October 2000.

III. INVITED LECTURES PRESENTED AT MEETINGS (continued)

42. A.F. Starace, "Intense Laser-Atom Interactions: Correlation Effects and Control Mechanisms," *International Workshop on Atomic Systems in Extreme Fields*, Max-Planck, Institute on the Physics of Complex Systems, Dresden, Germany, 6-7 April 2001.
43. A.F. Starace, "Reflections on Ugo Fano's Life and Work," TAMOC Session, *2001 DAMOP Annual Meeting*, London, Ontario, Canada, 15 May 2001.
44. A.F. Starace, "Multiphoton Detachment With Elliptically Polarized Light: Angular Distributions and Elliptic Dichroism," *10th Annual International Laser Physics Workshop*, Moscow, Russia, 3-7 July 2001.
45. A.F. Starace, "Two-Electron Ionization of Lithium Minus by an Intense, Ultrashort Laser Pulse," *DOE AMO Physics Program Annual Research Meeting*, Granlibakken Conference Center, Tahoe City, CA, 30 September – 3 October 2001.
46. A.F. Starace, "Ionization of a Two-Electron System by an Ultrashort, Intense Laser Pulse: Electron Angular Distributions and Effects of Resonances and Laser Pulse Shapes," *Fundamentals of Laser Interactions III*, Kühtai, Austria, 13-18 January 2002.
47. A.F. Starace, "Production of GeV Electrons by Means of Intense Laser Interactions With Highly-Charged Ions," *11th International Laser Physics Workshop*, Bratislava, Slovak Republic, 1-5 July 2002, Book of Abstracts, p. 98.
48. A.F. Starace, "Angular Distributions of ATI-Plateau Electrons Produced by an Elliptically-Polarized Laser Field," *11th International Laser Physics Workshop*, Bratislava, Slovak Republic, 1-5 July 2002, Book of Abstracts, p. 99.
49. A.F. Starace, "Anisotropy and Magnetic Field Effects on the Entanglement of a Two-Qubit Heisenberg XY Chain," *11th International Laser Physics Workshop*, Bratislava, Slovak Republic, 1-5 July 2002, Book of Abstracts, p. 202.
50. A.F. Starace, "Effects of Thresholds, Light Polarization, and Electron Correlations on Strong Laser Field Interactions with Atoms," *Resonances and Reflections: Profiles of Ugo Fano's Physics and Its Influences*, ITAMP, Harvard-Smithsonian Center for Astrophysics, 24-26 July 2002.
51. A.F. Starace, "Angular Distributions for Multiphoton Double Ionization by an Intense Field: Selection Rules and Mechanisms," *9th International Conference on Multiphoton Processes (ICOMP IX)*, Elounda, Crete, Greece, 18-23 October 2002.
52. A.F. Starace, "Role of the Atomic Potential in Strong Field Phenomena," *Annual Meeting of the American Physical Society Division of Atomic, Molecular, and Optical Physics*, Boulder, CO, 20-24 May 2003.
53. A.F. Starace, "Double Ionization of Li^- by Ultrashort Laser Pulses," *International Symposium on (e,2e), Double Photoionization, and Related Topics*, Königstein, Germany, 30 July – 1 August 2003.
54. A.F. Starace, "Production of GeV Electrons from Highly Charged Ions Using Ultra Intense Lasers," *Annual Meeting of the Optical Society of America, Frontiers in Optics*, Tucson, AZ, 5-9 October 2003.
55. A.F. Starace, "Initial State Symmetry Dependence of Strong Field ATD Features," *Conference on Super Intense Laser Atom Physics*, Dallas, TX, 16-19 November 2003.

III. INVITED LECTURES PRESENTED AT MEETINGS (continued)

56. A.F. Starace, "Elliptical Dichroism Effects in Strong Field Detachment Processes," *13th International Laser Physics Workshop*, Trieste, Italy, 12-16 July 2004.
57. A.F. Starace, "Dynamics of Few-Body Atomic Processes," *DOE Atomic Molecular, and Optical Sciences Annual Meeting*, Warrenton, VA, 12-15 September 2004.
58. A.F. Starace, "Polarization and Initial State Symmetry Dependence of Strong Field Atomic Processes," *Annual Meeting of the Optical Society of America, Frontiers in Optics*, Rochester, NY, 10-14 October 2004.
59. A.F. Starace, "Single and Double Detachment Induced by Few-Cycle Pulses," *340th Wilhelm und Else Heraeus Seminar on "High Field Attosecond Physics"*, Obergurgl, Austria, 9-15 January 2005.
60. A.F. Starace, "Single and Double Detachment Induced by Few-Cycle Pulses," *Workshop on Attosecond Science*, Harvard Smithsonian Institute for Theoretical Atomic and Molecular Physics (ITAMP), Cambridge, MA, 2-5 May 2005.
61. A.F. Starace, "Rescattering Effects in the Multiphoton Regime," *10th International Conference on Multiphoton Processes*, Orford, Québec, Canada, 9-14 October 2005.
62. A.F. Starace, "Understanding Optical Strong Field Physics from a Quantum Theory Perspective," *Harvard-Smithsonian ITAMP Workshop on "X-Ray FELs: Challenges for Theory"*, 19-21 June 2006.
63. A.F. Starace, "Understanding Optical Strong Field Physics from a Quantum Theory Perspective," *Annual Ringberg Meeting*, MPQ-LMU Laboratory for Attosecond and High Field Physics, Schloss Ringberg, Tegernsee, Bavaria, 20-22 November 2006.
64. A.F. Starace, "Quantum Origins of Strong Field Plateau Features," *Conference on Atomic Physics*, Max Planck Institute on the Physics of Complex Systems, Dresden, Germany, 29 November – 1 December 2006.
65. A.F. Starace, "Initial State Symmetry Effects on ATD Plateau Enhancements," *The 37th Winter Colloquium on the Physics of Quantum Electronics (PQE-2007)*, Snowbird, Utah, 2-6 January 2007.
66. A.F. Starace, "Description of Harmonic Generation in Terms of the Complex Quasienergy," *International Conference on Coherent and Nonlinear Optics (ICONO 2007)*, Minsk, Belarus, 28 May – 1 June 2007.
67. A.F. Starace, "Attosecond Pulse Carrier-Envelope Phase Effects on Ionized Electron Momentum and Energy Distributions," *391st WE-Heraeus-Seminar: Attosecond Physics*, Dresden, Germany, 1-5 August 2007.
68. A.F. Starace, "Dynamics of Few-Body Atomic Processes," *DOE Atomic Molecular, and Optical Sciences Annual Meeting*, Warrenton, VA, 9-12 September 2007.
69. A.F. Starace, "Attosecond Pulse Carrier-Envelope-Phase Effects on Ionized Electron-Momentum and Energy Distributions," *402nd Wilhelm und Else Heraeus Seminar on "Novel Light Sources and Applications"*, Obergurgl, Austria, 3-9 February 2008.
70. A.F. Starace, "Attosecond Pulse Carrier-Envelope-Phase Effects on Ionized Electron-Momentum and Energy Distributions," *International Symposium on Nonlinear Wave Physics: Physics of Extreme Light*, Nizhny Novgorod, Russia, 20-26 July 2008.