

ΒΙΟΓΡΑΦΙΚΟ ΣΗΜΕΙΩΜΑ

Yannis Komninos

Emeritus

Theoretical and Physical Chemistry

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EDUCATION

1972: B.Sc. Physics Dept., University of Athens, Greece

1976: Ph.D. Physics Dept., University of York, England

RESEARCH & TEACHING APPOINTMENTS

1976: Research Fellow at the Univ. of York

1977: Research Assistant, TPCI/NHRF, Athens, Greece

1984: Research Associate, TPCI/NHRF

1990: Senior researcher, TPCI/NHRF

1994: Visiting Professor at the University of Toledo, USA

1998: Director of research, TPCI/NHRF

2002: Visiting Professor at the University of Toledo, USA

MAIN RESEARCH INTERESTS

- My research activity deals with the theoretical calculation of properties of atoms and small molecules, especially in excited and highly excited states, and of the results of their interaction with short intense laser pulses.

- These activities have resulted in the publication of more than 60 papers in American and European Scientific Journals.

TEACHING ACTIVITIES

Courses in Numerical Analysis and Quantum Mechanics at TPCI/NHRF and at the University of Toledo U.S.A. Supervision of Ph.D. students.

PUBLICATIONS

68 publications in refereed journals. More than 1100 references.

SELECTED RECENT PUBLICATIONS

"Regular series of double excited states inside two-electron continua: Application to 2s₂-hole state in Neon above the Ne⁺⁺ 1s22s22p⁴ and 1s22s2p⁵ thresholds",

- Y.Komninos, Th. Mercouris and C.A. Nicolaides, [Phys. Rev. A 83, 022501 \(2011\)](#)
"Ab initio calculation of time-dependent control dynamics in polyelectronic systems involving bound and resonance states: Application to a quartet spectrum of He-",
Y.Komninos, Th. Mercouris and C.A. Nicolaides, [Phys. Rev. A 77, 013412 \(2008\)](#)
"Effect of the Rydberg series on the time evolution of nonstationary states below or just above the ionization threshold", Y.Komninos and C.A. Nicolaides, [Phys. Rev. A 72, 032716 \(2005\)](#)
"Long wavelength approximation in on- and off-resonance transitions", Y. Komninos, Th. Mercouris and C.A. Nicolaides, [Phys. Rev. A 71, 023410 \(2005\)](#)
"Effects of Configuration interaction of photoabsorption spectra in the continuum ", Y. Komninos and C.A. Nicolaides, [Phys. Rev. A 70, 042507 \(2004\)](#)
"Theory and computation of the matrix elements of the full interaction of the electromagnetic field with an atomic state. Application to the Rydberg and the continuous spectrum", Y. Komninos, Th. Mercouris and C.A. Nicolaides, [Phys. Rev. A 65, 043412 \(2002\)](#)