

Talk's title: **A Compact Free Electron Laser for Extreme Ultraviolet (EUV) Applications**

Abstract:

Part I) Collective Radiation Reaction in Free Electron Lasers.

(Reacción a la radiación colectiva en Láseres de Electrones Libres)

(Part II) Proposal for the development in Spain of an intense, coherent and compact source of EUV radiation for nano electronic applications.

(Propuesta de desarrollo en España de una fuente intensa de radiación EUV compacta para aplicaciones en nano-electrónica).



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Prof. Luis Elias is a Professor of Professor, Department of Physics and Astronomy and Director of the Terahertz Free Electron Laser Program. Presently Professor Elias is involved in an international collaboration with the Center for Physics Research (CBPF) in Rio de Janeiro, Brazil. As part of the collaboration effort a THz FEL device, worth about five million dollars, has been transferred to CBPF. Soon the FEL equipment is being reassembled in Rio at a specially designed laboratory. He received his Ph. D. and M. Sc. degrees in Physics from University of Wisconsin, Madison, WI (USA), in 1972 and 1968, respectively. Dr. Elias's current interests are concentrated on Free-Electron Lasers, Optical Resonators, Classical Electrodynamics, Electron Accelerators, Synchrotron Radiation, VUV Spectroscopy, Solid State Spectroscopy Infrasonic Waves in the Atmosphere, and Directing large research and development programs. He was worked previously in Stanford University, University of California, Santa Barbara (UCSB), and University of Central Florida (UCF). Prof. Elias is a Fellow of the American Physical Society, Member of the Optical Society of America and Senior member of IEEE .