

IN MEMORIAM



**Professor Herbert Walther
(1935-2006)**

Professor Herbert Walther, director and founder of Max-Planck Institut for Quantum Optics (MPQ), Garching, passed from this world on 22 July 2006, in Munich. He was an outstanding researcher of the physics of LIGHT, an exceptional Man and Friend, an Honorary Member of the Romanian Academy, a member of the Editorial board of the “Romanian Reports in Physics” and one of the strongest supporters of the “ROMOPTO” conferences.

Professor Herbert Walther was born on 19 January 1935, in Ludwigshafen/Rhine. He studied Physics at the University of Heidelberg, where he received the diploma in 1960 and obtained a doctorate two years later. Research work led him to the University of Hanover, to the Laboratoire Aimé Cotton (CNRS) in Orsay and to the Joint Laboratory of Astrophysics in Boulder, Colorado. He received positions of Professor at the University of Bonn in 1971, then at the University of Cologne. Since 1975, to his retirement in 2003, he held up the chair for Experimental Physics at the Ludwig Maximilian University, in Munich, 2003. In 1976, Prof. Walther, together with Prof. Karl-Ludwig Kompa and Dr. S. Witkowski, formed the project group “Laser Research” in the Max-Planck Institute for Plasma Physics (IPP) in Garching. Five years later, the project group became an institute and in 1986 it took the name of MPQ, with the new location in Kopfermann Strasse. Professor Walther was a director at the MPQ and director/head of the Department of Laser Physics until his “Emeritierung”, in February 2003. In this time interval, MPQ became a world center of excellence in quantum optics. After, 2003, Prof. Walther remained director/head of the Emeritus-group “Laser Physics” and was actively involved in the research until the last days of his life.

Prof. Walther brought major achievements in the field of quantum optics. Probably, his main research was in the investigation of the interaction between single photons and single atoms and/or ions, which finally led to the discovery of the “atomic maser”, a source for non-classical radiation. Another strong point of his results was in high resolution spectroscopy of ultra-cold ions, which are captured in a “Paul trap”, which showed the way for the development of newer, more precise atomic clocks. He was the author/co-author of more than 630 papers, many of them with hundreds of citations. His exceptional pioneering work is inseparably linked to the MPQ worldwide reputation.

His exceptional achievements in physics were also recognized by numerous awards: Max Born Prize (Institute of Physics, London and the German Physical Society, 1978), Einstein Prize (Industrial and University Research Affiliates, USA, Dec. 1988), Gauß Medal (Braunschweigische Wiss. Gesellschaft, May, 1989), Charles H. Townes Award (Optical Society of America, May 1990), King Faisal Prize in Physics (Faisal Foundation, Riyadh, April 1993), Michelson Medal (The Franklin Institute, Philadelphia, May 1993), Humboldt Medal (Alexander von Humboldt-Foundation, June 1997), Stern Gerlach Medal (German Physical Society, March 1998), Ernst Hellmut-Vits-Prize (December 1998), Willis E. Lamb Medal for Laser Physics (USA, January 1999), Order of Merit of the Federal Republic of Germany (July 1999) Quantum Electronics Prize (European Physical Society, Sept. 2000), Alfred Krupp Prize for Science (A. Krupp Foundation, April 2002), Order of Merit of the State of Bavaria (July 2003), Frederic Ives Medal/Jarus W. Quinn Endowment (Optical Society of America, Oct. 2003).

Many Academies and learned societies elected Prof. Herbert Walther as honorary member: Academia Sinica, China, Bavarian Academy of Sciences, Akademie der Naturforscher, Leopoldina, Roland Eötvös Physical Society, Hungary, American Academy of Arts and Sciences, Heidelberg Academy of Sciences, Romanian Academy, Nordrhein-Westfälische Akademie der Wissenschaften, Academia Europaea, Russian Academy of Sciences, Hungarian Academy of Sciences, Convent for Technical Sciences of the German Academies, German Physical Society, Belarusian Physical Society and many others.

He was a Vice-president of Max-Planck-Society (1990-1996) and acted in many other important societies such as: German Physical Society, European Physical Society, German Science Foundation (DFG), European Science Foundation, IUPAP, Ernst-Abbe-Foundation, Deutsches Museum.

Herbert’s friends, including myself, will keep in their minds and hearts his openness for new ideas, the nice and encouraging scientific discussions with him, his beautiful lectures and his kind human personality. His exceptional kindness was strongly related to that of Mrs. Margot Walther, of his son, Thomas and of his daughter, Ulrike. We shall miss him very much. In these hard moments, we convey to his family our condolences. Requiescat in pace! Und das ewige LICHT leuchte ihr!

*Prof. Ionel Valentin Vlad,
Member of the Romanian Academy*