



Biography

Dr. Heinrich Hora



Professor Heinrich Hora had his undergraduate studies 1950-1956 in Theoretical Physics at the University Halle-Wittenberg, Germany, (Diplom-Physiker) and worked with Paul Görlich whose discovery of the Cesium-Antimony photocathode could radically differently be understood as volume-photoeffect using integral equation solutions for the Richardson effects and measurements of the polarization properties (Dr.rer.nat. thesis at University Jena 1960). Work at the Max-Planck-Institute for Plasma Physics in Garching/Munich until 1975 and from then as Foundation Professor in the Chair of Theoretical Physics at the University of New South Wales, Sydney, Australia (emeritus from 1991) focused on laser-plasma interaction with discovering ponderomotive and relativistic self-focusing, the nonlinear interaction force by clarifying the optical modification of Maxwell's stress tensor for plasmas, derivation of the volume ignition of laser driven fusion, nonlinear acceleration of electrons in laser fields in vacuum, and the theory of the Schwarz-Hora effect (see Appl.Phys.Lett. 102 (2013) 141119). From 1989 he was working on cold fusion where he derived the screening of deuterons and the 2-picometer reaction distance following measurements of Prelas leading to the cluster model for Miley's discovery of LENR whose measurement of the Maruhn-Greiner maximum at atomic mass 156 could be related to nuclear magic numbers. Hora worked 7 years in industrial research centers (Zeiss, IBM, Westinghouse, Siemens) has a Doctor of Science degree (1981) is author of 10 books and his awards include the Edward Teller Medal and the Dirac Medal.