

TO 70TH ANNIVERSARY OF PROF. OLEG A. TRETYAKOV



On the 4th of February, 2008 we celebrated 70th anniversary of Prof. Oleg Alexandrovich Tretyakov. For a long period of time he headed Theoretical Radiophysics Department at Karazin Kharkiv National University, where he generated his own scientific school that has got recognition and popularity. Under his management as a Chairman of the Doctor Degree Specialized Committee more than 150 doctor and over 250 candidate (PhD) theses were successfully defended.

Here is his brief biography

- 1955 – secondary school gold medalist.
- 1960 – graduates from Kharkiv State University, specialty “radiophysics and electronics”
- 1964 – defended PhD (Candidate of Phys&Math Sciences) in specialty “Radiophysics”
- 1966 – Diploma of Associate Professor at Radiophysics Department
- Since 1972 to 1997 years – Head of the Theoretical Radiophysics Department
- 1973 – Diploma of Doctor of Phys&Math Sciences (DSc), specialty “Physical electronics”
- 1975 – Diploma of Professor at Radiophysics Department
- Since 1976 to 1997 – Chairman of Doctor Degree Specialized Committee
- 1980 – Decree of the Emperor of Japan concerning the ranking of O. A. Tretyakov as a Full Professor of the University of Electrocommunications in Osaka.
- 1994 – Professor of International Soros fund
- Since 1994 – associate editor of International Journal “Electromagnetics” Los Angeles (USA)
- Since 1993 – chairman of the Commission “Fields and waves” of the Ukrainian Committee of URSI

Since 1992 – Editor of the International series of Monographies “Progress in electromagnetism” published in Tokyo, Japan.

As an invited lecturer Prof. Tretyakov visited:

1970 – Osaka (Japan); 1980 – Osaka (Japan); 1985 – Beijing (China); 1991 – Adana (Turkey); 1992 – Natya (Japan) and also 6 other largest universities of Japan.

22 candidate (PhD) and 4 doctor theses (DSc) were defended under supervision of O. A. Tretyakov.

He authored more than 250 scientific publications mainly published in the most respectable international journals. Tretyakov O. A. also has published 3 monographies (1989, 1993, 2002).

As a lecturer Tretyakov O. A. prepared the following lecture courses: Theoretical mechanics, Electrodynamics, Quantum mechanic; Evolution of electromagnetic fields in resonators; Fundamentals of nonlinear electrodynamics; Nonlinear electrodynamics.

In 1980, for the schooling of highly-skilled students, he has been awarded by Diploma of the Supreme Council. His brilliant teaching style still now remains a highest standard for all the teachers at School of Radiophysics at KhNU.

Since 1997 Prof. Tretyakov is successfully working as lecturer at Gebze Institute of Technology, Turkey.

Prof. O. A. Tretyakov has founded the main direction of scientific research in the field of Time Domain Electromagnetics at the Theoretical Radiophysics Department at Karazin Kharkiv National University. The direction is based on the so called Modal Basis Method, proposed by Prof. Tretyakov in mid 80-s as a solid framework for analysis of transient electromagnetic phenomena in a closed domain – first in cavities and later in waveguides, later the method was also advanced to analysis of free space wave propagation. The method is based on mode expansion of the sought fields directly in the Time Domain without exploiting any Fourier transformation. As a result the whole problem is split into two lower dimensional problems: the problem in cross-section for modes and the problem in longitudinal direction and time for mode amplitudes. This method can be successfully applied to rigorous analysis of transient signals propagation, propagation in transient media, in nonlinear media. A series of young scientists were attracted by this idea and currently are advancing the method. It was advanced for open geometries (cylindrical and spherical coordinates) (A. Dumin), for transverse inhomogeneous waveguiding structures (A. Butrym), cavities with dispersive media (M. Antyufeyeva), and several other challenging problems. These methods being analytical allows obtaining rigorous solutions and deep physical insight into the transient electromagnetic phenomena.