

Special History Plenary Session Honors Professor Boris Kogan

The June 2005 special issue of *IEEE Control Systems Magazine* on analog computing included an interview with Boris Kogan, one of the great control pioneers in the former Soviet Union. In conjunction with that issue, the IEEE Control Systems Society (CSS) History Committee arranged a special session at the 2005 ACC to honor Boris's life's work. The session was held on the evening of 8 June 2005 in Portland, Oregon.

After my brief introduction to the session, Kent Lundberg, who edited the special issue, gave an overview of the history of analog computing beginning with the work of Lord Kelvin on predicting tidal motion. I followed Kent's talk with a description of Boris's life work and interactions, largely based on the interview, but with some additional material that I had gleaned in the months between the final version and the special session. The next speaker was George Bekey, Professor Emeritus from the University of Southern California, who worked on analog computing from the early days of the field. George was prominent in the CSS until becoming more involved with the IEEE Robotics Society. George described Boris' career in three phases: the early phase (1937–1946) as an industrial control engineer working on paper mills, the middle one (1946–1975) involving the control of rockets and missiles and the development of analog and hybrid computers, and the latter one (1964–present) involving the computer simulation of biological systems. This third phase was connected with Boris' collaboration with and subsequent marriage to Dr. Mina Rajska, a noted cardiologist in the former Soviet Union.

Next, Petar Kokotovic, who had often described Boris as a mentor, provided remarks through a prerecorded video. Petar thanked Boris for his contributions and friendship over the years and congratulated him on an honor that was long overdue.

Boris then spoke on his current work involving massively parallel computing for simulating cardiac heart arrhythmia. His talk described the equations for modeling heart arrhythmia and showed how such models can be simulated to study the spatial waves present in the heart both in and out of arrhythmia. Boris stressed how the tools for system analysis and simulation with which controls engineers are so familiar are well adapted to understanding and simulating complex biological systems.

The session ended with a standing ovation from the audience, recognition long overdue from the controls community.

—Daniel Abramovitch
IEEE CSS History Committee



ACC 2006 history session participants. From left: Dr. Mina Rajska, Prof. Boris Kogan, Prof. George Bekey, Danny Abramovitch, and Kent Lundberg.



Danny Abramovitch speaks with Dr. Mina Rajska, wife of Boris Kogan. Dr. Rajska is a noted cardiologist.



Tom Robbins of National Instruments and Gene Franklin chat with Boris Kogan after the history session.