In memory of Pavel Evseevich Sobolevskii

Professor Pavel Evseevich Sobolevskii, a well known expert on PDEs, functional analysis, and numerical analysis, passed away in Fortaleza (Brazil) surrounded by his family on 16th of August 2018 at the age 89.

P. E. Sobolevskii was borh 26 March 1930 in Kiev (Ukraine). After getting his undergraduate degree form Kiev State University, he entered graduate school in Voronezh (Russia), where a major school in functional analysis was being created at the time. Two giants of this school, M. A. Krasnoselskii and S. G .Krein were advisers on his PhD dissertation, defended in 1958. As a part of the thesis, P. E. introduced and used masterfully the notion of an "acute angle" between operators, which enables one to compare complex operators with simpler ones. This technique has been later usaed by many mathematicians, e.g. J. L. Lions, H. Brezis, and L. Nirenberg. The intertwining themes of functional analysis and PDEs had been underlying P. E. 's research since.

Starting 1958, Sobolevskii worked at mathematics department of the Voronezh Agriculture Institute, chairing the department sine 1964. In 1962, he got the prestigious and hard to get Doctor of Science degree (an upscale version of European Habilitation). In 1968, when M. A. Krasnoselskii moved to Moscow, P. E. became the Head of the department of functional analysis at Voronezh State University.

Among many other (besides the "acute angle") scientific achievements of P. E. Sobolevskii, one can mention his joint with V. Maz'ya proof of the classical and important criterion of existence of a contracting operator

semi-group in a Banach space with differentiable norm (this result is usually attributed to Lumer and Phillips, although Sobolevskii and Maz'ya obtained it simultaneously and independently); development in the context of analytic semi-groups of the so called Kato-Sobolevskii-Tanabe theory of non-autonomous parabolic equations; important results on parabolic equations, which in particular implied one of the first local existence theorems for the Navier-Stokes equation; development of the theory of fractional powers of positive operators; new methods of numerical solutions of PDEs, and a lot more.

Sobolevskii was a prolific and well cited author, publishing around 180 research articles and four monographs on PDEs, functional analysis, and numerical methods.

Besides leading a very active research, P. E. was also an accomplished teacher and adviser. He has advised on 35 PhD dissertations. Math Genealogy Project lists 63 his "research descendants."

In 1991, P. E. Sobolevskii moved to Israel, where he worked at the Hebrew University till his retirement in 2003. After that he moved to Brazil to join his daughter's family. From 2003 till 2006 he held a visiting position at the Universidade Federal do Ceara (UFC).

The memory of Pavel Evseevich Sobolevskii, a scientist and a person, will live in his works and in the hearts of his family, students, and colleagues.

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