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GREGORY ESKIN

BULLETIN (New Series) OF THE
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Sobolev spaces of infinite order and differential equations, by Julij A. Dubinskij. B. G. Teubner, Leipzig, and D. Reidel, Dordrecht, Boston, Lancaster, and Tokyo, 1986, 161 pp., \$48.00. ISBN 90-277-2147-5

The early fifties, marked by the publication of the book *Applications of functional analysis in mathematical physics* by Sergej L. Sobolev in 1950 (see [1]), can be considered the beginnings of a systematical study of function spaces, which soon obtained the name of *Sobolev spaces*. Of course, the foundations of this research had been laid by Sobolev as early as in the thirties by his three papers that appeared in the years 1935–1938. In 1939 Sobolev became the youngest member of the Soviet Academy of Sciences at the age of 31. His approach during this period, which involved among other things the foundations of the theory of distributions, can be seen in his book [2] published in 1974. It is not my intention to incite discussions on the question of priority: as is quite frequent in mathematics, there were other mathematicians reflecting on similar problems (J. W. Calkin, Ch. B. Morrey, Jr.), and even the Dirichlet integral can be considered a basis for the theory of Sobolev spaces.

It was discovered that the Sobolev spaces form a very useful tool for introducing modern methods of solution of partial differential equations. Their stormy development was not restricted to the country of their origin (some generalizations and new views of these spaces can be found, e.g., in the books [3, 4] by S. M. Nikol'skij and his colleagues): monographs devoted to the theory of Sobolev spaces appeared also outside the Soviet Union. At first, the