

# INTRODUCTION TO FUNCTIONAL ANALYSIS

(Fall 2020)

Alexei Yu. Pirkovskii

## References

- [1] A. Ya. Helemskii. *Lectures in Functional Analysis*. MCCME, 2004 (in Russian). English transl.: AMS, 2006.
- [2] V. I. Bogachev and O. G. Smolyanov. *Real and Functional Analysis*. RCD, 2011 (in Russian). English transl.: Springer, 2020.
- [3] A. A. Kirillov and A. D. Gvishiani. *Theorems and problems in Functional Analysis*. Moscow, Nauka, 1979 (in Russian). English transl.: Springer, 1982.
- [4] B. Simon. *Real Analysis. (A comprehensive course in Analysis, Part 1)*. AMS, 2015.
- [5] B. Simon. *Operator Theory. (A comprehensive course in Analysis, Part 4)*. AMS, 2015.
- [6] M. Reed, B. Simon. *Methods of Modern Mathematical Physics. 1. Functional Analysis*. Academic Press, 1972. Russian transl.: Mir, 1977.
- [7] V. M. Kadets. *A course in functional analysis*. Khar'kov. Nats. Univ. im. V. N. Karazina, Kharkiv, 2006 (in Russian). English transl.: Springer, 2018.
- [8] W. Rudin. *Functional analysis*. McGraw-Hill, 1991. Russian transl.: Lan', 2005.
- [9] J. B. Conway. *A course in Functional Analysis*. Springer, 1990.
- [10] A. Yu. Pirkovskii. *Spectral theory and functional calculi for linear operators*. MCCME, 2010 (in Russian). <https://www.mccme.ru/free-books/pirkovsky/pirkovsky-spectral.pdf>.
- [11] A. Yu. Pirkovskii. *Lecture notes in functional analysis*. Unfinished and unpublished lecture notes (HSE, 2011/2012, in Russian). <http://vyshka.math.ru/1112/funcan.html>.