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Lecture SuSe 2024

Functional Analysis II

This is a continuation of last semester's course 'Functional Analysis I'. A significant part of the content will be on spectral theory of operators on Banach and Hilbert spaces. Further, some excurses into the theory of locally convex vector spaces are planned.

Prerequisites: Basic analysis and linear algebra, measure theory, knowledge of contents of the lecture 'Functional Analysis I'.

For M.Sc. students in 'Mathematical Physics': You'll need a seminar in order to get credit for the course. Please contact me after the first lecture on April 2nd.

Time and place starting April 2nd on Mon 9:15-10:45 in P-801 und Tue 9:15-10:45 in A-314.

moodle2: If you are interested in the course, please enroll in the virtual moodle2-course. Course material and further information will be posted there in due course.

This course is planned to be held in English.

Literatur

[1] John B.Conway. *A Course in Functional Analysis*. GTM, Springer-Verlag.

[2] Manfred Einsiedler and Thomas Ward. Functional Analysis, Spectral Theory and Applications GTM, Springer-Verlag.

[3] Michael Reed and Barry Simon. *Methods of Modern Mathematical Physics I, II and IV*. Academic Press New York and London.

[4] Konrad Schmüdgen. *Unbounded Self-adjoint Operators on Hilbert Space*, GTM Springer-Verlag.

[5] Joachim Weidmann. *Lineare Operatoren in Hilberträumen I: Grundlagen* (in German). B.G.Teubner Stuttgart Leipzig Wiesbaden.

[6] Dirk Werner. *Funktionalanalysis* (in German). Springer-Verlag.