

## Spectrum of bounded operators.

1. Remind about finite-dimensional situation
2. Definition of spectra;  $\sigma(T)$ ,  $\sigma_p(T)$
3. Examples
4. Classification of points of spectra.
5. Resolvent function
6. Neumann series, spectrum is bounded
7. Spectrum is open.
8. Digression analytic operator functions
9. Spectrum is not empty.
10. Spectral radii
11. Spectrum of compact operator.