

### Lecture 08, 30.01.02

- Space  $L^1(\mathbb{R})$ , identification of functions which coincide on sets of zero measure.
- Norm, triangle inequality
- Fourier transform of functions in  $L^1(\mathbb{R})$
- Properties of Fourier transform
- Rules for computing the Fourier transform
- Fourier transform: decay and smoothness

The content of this lecture can be found (mainly) in Lesson 17