

## Protocol Lecture 13.02

### *Uncertainty principle*

- Quantum mechanical interpretation
- Second moment as a measure of uncertainty
- Statement of the Heisenberg principle
- Proof
- Other versions (no proofs):
  - Additive version
  - Donoho-Stark uncertainty principle

### *Schwartz space*

- Definition
- Some examples
- System of norms, convergence
- Fourier transform of functions in  $\mathcal{S}$
- Convolution and multiplication
- More examples: finitely supported functions in  $\mathcal{S}$ .

The content of this lecture can be found (mainly) in Lessons 19 and 22 of the textbook.