

# Theoretische Physik 3

## Quantenmechanik

### SS 2018

Dozent : Marc Vanderhaeghen (vandma00@uni-mainz.de)  
Oberassistent : Slava Tsaran (viacheslav.tsaran@gmail.com)

Mi 12:00 - 14:00 (Minkowski)  
Fr 8:00 - 10:00 (Minkowski)

website:

*<https://wwwth.kph.uni-mainz.de/ss2018-theorie3/>*

## Schedule :

**18/04, 20/04 :**

wave function, statistical interpretation, probability, normalization, momentum, uncertainty principle

**25/04, 27/04 :**

stationary states, infinite square well

**02/05, 04/05**

harmonic oscillator, free particle

**9/05, 11/05**

wave packets, delta function potential

**16/05, 18/05 :**

finite square well and applications, operator formalism

**23/05, 25/05 :**

Operator formalism, Schrödinger's cat and kittens

**30/05, 01/06 :**

Schrödinger equation in spherical coordinates

**06/06, 08/06**

hydrogen atom, angular momentum

**13/06, 15/06 :**

spin, EPR paradox, Bell's theorem

**20/06, 22/06 :**

perturbation theory : time-independent

**27/06, 29/06 :**

perturbation theory : time-dependent

**04/07, 06/07 :**

quantum computing

**13/07 : KLAUSUR (9:00 - 12:00)**