## Modules:

### physics700 Elective Advanced Lectures physics730 Theoretical Physics

## Course: univ



# Random Walks and Diffusion (T)

Course No.: physics7502

Category	Туре	Language	Teaching hours	СР	Semester
Elective	Lecture with exercises	English	1+1	3	ST

Requirements:

#### Preparation:

Quantum mechanics and Thermodynamics

#### Form of Testing and Examination:

Requirements for the (written or oral) examination: Successful work within the exercises

#### Length of Course:

1 semester

#### Aims of the Course:

The aim of the course is to introduce the student to random processes and their application to diffusion phenomena

#### Contents of the Course:

Basics of probability theory, Master equation and Langevin equation, Law of large numbers and Central Limit Theorem, First passage problems, Large scale dynamics, Dynamical scaling.

#### Recommended Literature:

Will be announced in the first lecture