Random Walks and Diffusion (T) - physics7502

Course	**Random Walks and Diffusion (T)**
Course No.	physics7502

Category	Type	Language	Teaching hours	CP	Semester
Elective	Lecture with exercises	English	1+1	3	ST

Requirements for Participation:

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

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