

## Master-Modules in Probability

There are two Specialization Modules

- **Probability Theory and its Applications**
- **Stochastic Processes**

Every module consists of two courses.

- Winter 24/25: Stochastic Analysis, High Dimensional Probability, Point Processes
- Summer 25: Advanced Finance, N.N. , N.N
- Recurrent courses from the past: Stochastic Geometry, Advanced Probability, Random Graphs, Optimal Transport, Statistical Mechanics, Statistical Learning Theory, Markov Processes

In addition, there are

- **Student Seminars on various topics**

## Research Groups in Probability

- **Gerold Alsmeyer:** Renewal Theory, Branching Processes, Applied Stochastic Models, Random Recursive Equations
- **Steffen Dereich:** Complex Networks, Stochastic processes, Neural Networks
- **Anna Gusakova:** Convex and Stochastic Geometry
- **Martin Huesmann:** Stochastic Analysis, Optimal Transport, Finance
- **Zakhar Kabluchko:** Stochastic Geometry, Random Polynomials, Extreme Value Theory
- **Matthias Löwe:** Statistical Mechanics, Random Matrix Theory, Random Graphs, Large Deviations
- **Chiranjib Mukherjee:** Large Deviations, SPDE's, Directed Polymers, Statistical Mechanics
- **Volkert Paulsen:** Financial and Actuarial Mathematics
- **Hendrik Weber:** Stochastic Analysis, SPDE, Interacting Particle Systems, High-dimensional Stochastic Models