

This Bachelor Thesis compiles basics of ergodic theory. Motivation for writing this text was interesting topic and linkage between it and the mathematics already learned. The Thesis begins with defining measure-preserving transformations and continues with recurrence and Poincaré's recurrence theorem to ergodicity and Birkhoff's ergodic theorem and mixing. In the end, it is shown that Birkhoff's ergodic theorem generalizes Kolmogorov's strong law of large numbers for stationary random sequences. Theory is demonstrated on a handful of examples of basic transformations.