

The main objective of this bachelor's thesis is to help the reader apply combinatorics in physics problems, especially in problems in statistical physics. In the first chapter, the reader is reminded of combinatorial basic definitions and relations. In the following chapter, a set of problems is created in such a way that it can be followed later by problems from statistical physics, especially problems related to microstates and macrostates of quantum systems with small number of particles. Furthermore, this thesis contains problems using combinatorics in their solution from other parts of physics as well. This thesis can also be used as a collection of problems in selected topics of statistical physics.