

The main goal of this work is to give self-contained description of proximal and ordinary stochastic subgradient descent methods, which are used in finding sparse solutions of labeling optimization problems. We will define and interpret necessary concepts leading to the definition of those methods and we will discuss in detail conditions, under which we show convergence of these methods to critical point. At the end, we will present a numerical experiment on concrete optimization task where we demonstrate use of these methods. In this experiment we will also show how a suitable choice of so called regularization can influence sparsity of solution of this particular task.