Abstract

The lasso is a popular tool that can be used for variable selection and estimation, however, classical statistical inference cannot be applied for its estimates. In this thesis the classical and the group lasso is described together with efficient algorithms for the solution. The key part is dedicated to the post-selection inference for the lasso estimates where we explain why the classical inference is not suitable. Three post-selection tests for the lasso are described and one test is proposed also for the group lasso. The tests are compared in simulations where finite sample properties are examined. The tests are further applied on a practical example.