

Inter-calibration of Laboratory Measurements Using Lasso

Patrick Dinan* August 2024

Abstract

The least absolute shrinkage selector operator (lasso) has been popularized for its ability to perform both variable selection and shrinkage. This paper examines the potential of lasso to consider how a change in sampling protocol could affect long-term monitoring programs. By modifying the lasso and implementing a complementary Bayesian approach, simulations studies are conducted to assess various performance metrics relating to point estimation and statistical testing. These evolutions examine how this penalized regression method compares against previous approaches on this topic.

^{*}Postal address: Mathematical Statistics, Stockholm University, SE-106 91, Sweden. E-mail: patrickdinan@icloud.com. Supervisor: Martin Sköld.