Dear Editors,

We are resubmitting a revised version of our research article (JCGS-16-148) “Gradient-based Regularization Parameter Selection for Problems with Non-smooth Penalty Functions “ for consideration in the Journal of Computational and Graphical Statistics. We appreciated the feedback from the Associate Editor and have addressed them appropriately.

This new revision is substantially different from the initial submission. Our proposal is now presented with the appropriate context. The introduction provides a much more thorough review of previous research in tuning hyperparameters in regression problems. We highlight that our key contribution is showing that the gradient of the validation loss can be calculated with respect to the penalty parameters for many regression problems with non-smooth penalty functions. The simulation studies now benchmark against grid search, Nelder-Mead, and the Bayesian optimization technique by Snoek et. al. (2012). We find that by using the gradient information, our method is significantly more efficient at finding models with lower validation error.

Once again we thank the JCGS staff for the constrictive criticism of our initial submission. We look forward to hearing back from the journal regarding our latest revision.

Sincerely,

Jean Feng

Noah Simon