Data Mining in R: Regularization Paths

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Regularization is a popular approach to model selection, with L2 and L1 taking center stage. Recently there has been a spate of research on efficient algorithms for computing regularization paths. In this talk I will discuss and demonstrate three R packages that implement path algorithms:

- LARS: Least angle regression and extensions, for lasso and related paths for regression.

- GLMPATH: An extension of LARS for L1 regularized generalized linear models, including coxpath().

- SVMPATH: a regularization path algorithm for fitting support-vector machine classifiers for all possible values of the cost parameter.