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Fakultät für Mathematik und Wirtschaftswissenschaften Institut für Stochastik

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14. Oktober 2016

## **Einladung zum Vortrag**

von

## **Denis Dimitrov**

Lomonosov Moscow State University, Russia

## Elastic nets for the feature selection in linear regression models

This work is dedicated to the analysis of linear regression with elastic net regularization. At first, we have considered the case of classic unregularized regression and the corresponding Ordinary Least Squares (OLS) method. Due to few drawbacks of OLS like large variance, we have considered well known Ridge regression, Least Absolute Shrinkage and Selection Operator (LASSO method). The last one has been introduced by Robert Tibshirani. It gives us a possibility to improve prediction and interpretation of the model in the sense that we often would like to determine a smaller subset in large set of predictors that exhibits the strongest effects, so we have set some coefficients to zero. Elastic net regularization unites both of the aforementioned regularizations, so it inherits the certain features of them. In one work, the group effect of elastic net estimation has been proved for general case of convex regularizators. Moreover, it has been shown that elastic net estimation of regression coefficients is consistent.

## Termin: Dienstag, 25. Oktober 2016, 14 Uhr

## Ort: Universität Ulm, Helmholtzstr. 18, Raum 220

Interessenten sind herzlich eingeladen.

Der Vortrag findet im Rahmen des Forschungsseminars des Institutes für Stochastik statt.

gez. E. Spodarev