Ludwig-Maximilians-Universität Munich
Department of Statistics



Invitation to the Final Presentation of the
Statistical Consulting Project

## Analysis and evaluation of an additive logistic regression with respect to temporal and spatial dependency of its predictor variables

The relations between lightning occurrence over Europe from the European Cooperation for Lightning Detection (EUCLID) network and parameters derived from the ERA-Interim global atmospheric reanalysis were used to model the probability for thunderstorms occurrence.
The model was developed by fitting an additive logistic regression to multiple selected physical parameters. The physical parameters have been assumed to be independent, both temporally and spatially. This assumption does not hold in reality.
In this consulting project it is analyzed how a consideration of temporal and spatial dependency of the predictor variables changes the quality of the predictand. For this aim spatial and time components are developed and included in the additive logistic regression.

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| **Date** | Monday, 13th November 2017, 14:00 (c.t.) |
| **Location** | Ludwigstr. 33, Room 144 (Seminarraum) |
| **Project Partner** | Anja Rädler (Department of Physics) |
| **Supervisor** | Prof. Dr. Helmut Küchenhoff, Andreas Bender |
| **Speakers** | Siranush Karapetyan, Dominik Jüstel |