

Development of an Air Quality Related Predictive Live Platform Based on Near Real-Time Data (Poster)

Johanna Redelstein ¹, Erik Petersen ¹, and Andreas Philipp ¹

¹ University of Augsburg, Institute for Geography, Augsburg, Germany, E-mail: johanna.redelstein@geo.uni-augsburg.de

Within the context of the SmartAQnet project [1], a forecast model for particulate matter is to be developed. This poster presents the first approaches that make use of the relationship between meteorological variables and particulate matter concentration.

With a cost733class software package developed at the Institute of Geography, a weather classification is to be created, which is specially adapted to particulate matter concentrations in Augsburg. Another method is to train an artificial neural network. For example, GFS forecasts, fine dust measurements of the last hours, vertical profiles of the atmosphere measured with unmanned air vehicles and the time of year are taken as input parameters.

References

- [1] Matthias Budde, Till Riedel, Michael Beigl, Klaus Schäfer, Stefan Emeis, Josef Cyrus, Jürgen Schnelle-Kreis, Andreas Philipp, Volker Ziegler, Hans Grimm, Thomas Gratza (2017) SmartAQnet: Remote and In-Situ Sensing of Urban Air Quality, Proc. SPIE 10424, Remote Sensing of Clouds and the Atmosphere XXII, 104240C, doi:10.1117/12.2282698