



Prediction of weather related fire brigade operations on the basis of nowcasting data

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Extreme weather events such as large scale winter storms and small scale convective events often cause immense impacts on society. Particularly in large metropolitan areas this can pose enormous challenges for civil protection agencies such as fire brigades. In order to maintain an effective management of fire brigade operations in advance as well as during such events it would certainly be of great value to be able to predict possible impacts on high spatial resolution, such as urban district scale or higher.

However predictability of local impacts is strongly limited due to a lack of predictive skill for severe weather conditions on such small scales, particularly for lead times of hours and more.

Based on 11 years of weather related operation records of the Berlin Fire Brigade this study investigates in how far data from state of the art nowcasting systems could potentially be used to predict local weather impacts on very short lead times. In particular 2 convectively driven severe weather events are analyzed, demonstrating the possibilities as well as weaknesses of such approaches.