



Winter time road traffic accidents compared to weather in Finland

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Winter time traffic accidents are quite often related to weather; slipperiness and poor visibility increase the risk of traffic accidents. Snowfall and icy roads are very typical of the Finnish winter although slipperiness is treated with snow ploughing and salt spreading. The Finnish Meteorological Institute (FMI) issues warnings if difficult or very difficult driving conditions are expected to happen due to the weather. Warnings are available via several media including weather reports on TV or radio, websites, mobile phone applications or car navigators.

The PRONTO database maintained by the Finnish Rescue Services is a register of every rescue services operation for the whole country since 1996. In addition to identification data (e.g. location and time) PRONTO contains assessments on cause of incidents, human and property losses, and operation of emergency services during incidents.

This study uses road traffic accidents registered in PRONTO. Using the exact location and time information stored in PRONTO since 2007 hotspots of road traffic accidents can be found, and the correlation between accidents and the hazards of winter weather and issued road weather warnings, studied. In addition to the FMI weather stations data from the more numerous road weather stations maintained by the Finnish Transport Agency will be used. These road weather stations add many parameters to the most common parameters like temperature and precipitation.

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