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Lightning-Based Cell-Tracking for Storm-Alert at Airports

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Lightning data from the European LINET have been exploited for the investigation of cell-tracking within the research project RegioExAKT, sponsored by the German government, and designed to evaluate nowcasting procedures for storm alarm at airports. Many cells during thunderstorms that approached and passed over the Munich airport in 2007 and 2008 have been tracked and analyzed. The longer-lived cells have been used to test the generation of warning and alarm messages for the airport area. The present contribution presents the results, which are partly very promising. A particularly interesting case will be shown in detail, namely the front storm 'EMMA' of 01 March 2008, where surprisingly accurate predictions have been possible.