Climatology and meteorology of lightnings in Norway

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The climatology and meteorological conditions related to lightning have been investigated in Norway. In continental East-Norway, the frequency of lightning has a maximum in the afternoon in the summer, while in the western coastal regions, the maximum frequency of lightning occurs in the winter, with no diurnal preference. At some locations, both coastal and continental type of lightning events occur, giving high frequencies in summer and winter. The coastal lightning events are mostly associated with deep and rapid extratropical cyclones, but such cyclones are absent in the events of continental lightning. There is considerable interannual variability in frequency of lightnings in Norway, but no clear long-term trends.