



## **Correlation of lightning activity with brightness temperatures in the Mediterranean**

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In the present study, the correlation between lightning and brightness temperature is investigated. For the analysis, the cloud to ground lightning activity recorded by UK-Metoffice ATD (Arrival Time Difference) system, the lightning data and the 85-GHz brightness temperature ( $T_b$ ) measured by NASA TRMM LIS and TMI respectively, are used. The statistical analysis aims to identify the correlation between various thresholds of brightness temperature and cloud to ground and intra-cloud lightning activity. The comparison is performed over the Central and Eastern Mediterranean Sea for the period autumn and winter 2003-2004 and for a large number of events that were characterised by important lightning activity.