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Nowcasting and forecasting of lightning over Greece in the frame of Talos project.

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Thunder And Lightning Observing System (TALOS) is a research program funded by the Greek Ministry of Education with the aim to promote excellence in the field of lightning meteorology. This presentation focuses on the first results concerning the nowcasting and forecasting of lightning over Greece, with emphasis on the operational aspects of this endeavor. The nowcasting tools are based on the use of lightning data provided by the ZEUS lightning detection system, operated by the National Observatory of Athens since 2005, complemented by high-time resolution METEOSAT imagery. Forecasting is based on the use of WRF numerical weather prediction model, in which a lightning forecasting algorithm is implemented. Both nowcasting and forecasting are verified for a large number of cases characterized by severe lightning over Greece, observed during the warm as well as during the cold period of the year.