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Lightning Activity Predictions for Single Buoy Moorings

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Abstract content
   (Max 300 words)

Offshore Single Buoy Moorings (SBMs) serve as points for tankers to load and offload gases or liquids. They cater for ships of any size and remove the need to enter port. This is especially important for very large vessels. SBMs located in areas of intense lightning activity are vulnerable to disruptions caused by thunderstorms. Furthermore, some of the fluids transferred via SBMs are either hazardous or flammable. A direct lighting strike while a ship is tethered to a SBM would therefore have catastrophic consequences. We present an ensemble machine learning model which uses real time global lightning data to predict lightning activity in the vicinity of SBMs. These predictions will be used to schedule SBM transfers and to provide advanced warning of dangerous conditions.

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