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Torrential rainfall prediction: WeMOTool

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The Western Mediterranean Oscillation index (WeMOi) presents a statistically significant relationship with the pluviometric totals of the eastern façade of the Iberian Peninsula. Use of the WeMOi at daily resolution has proven to constitute a useful tool for helping to predict torrential rainfall episodes in the east of the peninsula. The present research attempts to determinate which atmospheric circulations defines the WeMOi phases. Also, the WeMOi research has focused on the prediction of it in order to configure itself as a predictive tool, the WeMOTool, for torrential rains associated, especially during the autumn months. The calculation of this index is made using the surface pressure data of the GFS model and is updated with the model outputs at 00h and 12h and up to 144h.