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Prediction of Mars meteorological variables using artificial neural networks

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Weather forecasting is the task of determining future state of the atmosphere for a given location and time.

This research perform weather forecast based on experimental data obtained from REMS, meteorological station present on Curiostiy the Mars Science Laboratory mission, a study of meteorological Mars variables has been done using an artificial neural network.

The method of this study is data driven approach, using computer science expertises which has been done on Earth during long time, but never on Mars. Therefore applaying computer science on a planetary science field. An artificial neuronal network has been developed to provide the solution, Mars weather forecast.

This research will be a great base for the future development of meteorological stations on Mars and the interpretation of their data, such as TWINS and MEDA.