

## **Meteorological Observations in the Atacama from a new climate stations network**

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The Atacama is one of the driest regions on earth and thus forms a natural laboratory for different science fields as e.g. astronomy, space science, exobiology or geology. The collaborative research center CRC1211 'Earth evolution at the dry limit' of the German science foundation (DFG) brings together some of these fields to gain new insights in evolution of life, land surface processes and climatology.

Despite the outstanding characteristics of the Atacama there is a lack of meteorological observations in the region. For that reason, the CRC1211 set up a network of 15 climate stations. It covers the region from about 19.7°S to 25°S from the coast to the slope of the Andes and is organized in 3 transects covering the focus areas of the project.

The network was completed in March 2018. A first analysis of the data will be presented. A distinct wind system is present at all stations with strong westerly winds from noon to late evening and weak easterly winds in the night and morning hours. In parallel to this diurnal cycle, water vapor shows a regular pattern indicating a significant transport of water vapor into the desert. Fog occurs frequently in the coastal mountain range and decreases further inland.