



Coupled patterns in complex climate networks

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The idea of constructing climate networks from climate time series taken at geographical grid points states a quite young and promising approach to provide novel insights into the dynamics of the climate system.

In order to investigate the relation and mutual influence of superposed climate patterns we introduce the method of constructing three-dimensional networks. By means of analyzing their topological properties we aim at mapping atmospheric circulation phenomena (e.g. Hadley Cells) or even revealing structures which might be related to extreme events. We focus on different levels of geopotential height using reanalysis data ranging from 1948 to 2008.