Soil-vegetation-atmosphere interactions and midlatitude summer droughts

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In a recent work, we introduced a model for the coupled dynamics of the soil and the atmosphere, focussing on the phenomenon of summer droughts at continental midlatitudes. In another work, we focussed on the relevance of rainfall intermittency in arid regions, introducing a model for the dynamics of soil and vegetation. In this contribution we discuss a new conceptual model for the coupled dynamics of the system soil-vegetation-atmosphere and we focus on the active role of vegetation in the development and control of summer droughts.