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Georg Hetzer* (hetzege@auburn.edu), Department of Mathematics and Statistics, Auburn University, Auburn, AL 36849-5310. *Trajectory Attractor for a Reaction-Diffusion Problem from Climate Modeling*. Preliminary report.

Energy balance climate models lead to reaction-diffusion problems with slow diffusion and a set-valued reaction term on the 2-sphere. A hysteresis term accounts for a frequent repetition of sudden and fast warming followed by much slower cooling as observed from paleoclimate proxy data. Existence of global solutions and of a trajectory attractor will be discussed. (Received February 01, 2015)