

Abstract Submitted
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Stochastic dynamics of melt ponds and sea ice-albedo climate feedback IVAN SUDAKOV, Department of Physics, University of Dayton — Evolution of melt ponds on the Arctic sea surface is a complicated stochastic process. We suggest a low-order model with ice-albedo feedback which describes stochastic dynamics of melt ponds geometrical characteristics. The model is a stochastic dynamical system model of energy balance in the climate system. We describe the equilibria in this model. We conclude the transition in fractal dimension of melt ponds affects the shape of the sea ice albedo curve.

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