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Sher B. Chhetri*, 200 Miller Road, Sumter, SC 29150. *Statistical Inference for Stochastic Climate Models with Levy Jumps*. Preliminary report.

The alpha-stable distributions introduced by Paul Levy play an important role in many areas including finance, economics, and climate change. Various stochastic climate models with alpha-stable Levy noises have been proposed. In this work, we use sample characteristic function method and least-squares estimation method to estimate all parameters of a Levy driven stochastic climate dynamics first proposed by Ditlevson in 2000. The dynamics of the model is described by a Langevin equation with two noise terms. (Received September 21, 2021)