Shuyang Bai (bsy9142@uga.edu), GA, and Yizao Wang* (yizao.wang@uc.edu), OH. Phase transition for extremes of a family of multiple-stable processes: the macroscopic level. Preliminary report.

We investigate a family of discrete-time stationary processes, known as stable-regenerative model, that may exhibit typical behavior of short-range or long-range dependence, respectively, depending on the parameters. We reveal the phase transition at the macroscopic level in terms of convergence of random sup-measures. In particular, when the model exhibits long-range dependence, our results characterize the long-range clustering of extremes. (Received September 20, 2021)