1144-28-140 **Xianghong Chen*** (xchen@georgiasouthern.edu), Department of Mathematical Sciences, Georgia Southern University, Statesboro, GA 30460, and **Tian-You Hu** (hut@uwgb.edu), Department of Mathematics, University of Wisconsin-Green Bay, Green Bay, WI 54311.

Asymptotics of signed Bernoulli convolutions scaled by multinacci numbers.

For $\beta > 1$, we consider the signed Bernoulli convolution

$$\nu_\beta^{(n)} := *_{j=1}^{n} \left(\frac{1}{2}\delta_{\beta^{-j}} - \frac{1}{2}\delta_{-\beta^{-j}} \right), \ n \geq 1,$$

which can be regarded as a variant of the classical Bernoulli convolution with signed charges. The general asymptotic behavior of $\nu_\beta^{(n)}$ is still quite mysterious. However, in the case when β satisfies

$$\beta^m = \beta^{m-1} + \cdots + \beta + 1$$

for some integer $m \geq 2$, the exact asymptotic of the total variation $\|\nu_\beta^{(n)}\|$ can be obtained. We will discuss related questions and draw some connections to multiplicative chaos. (Received August 21, 2018)