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**Fredrik Johansson Viklund** and **Alan A Sola\*** (a.sola@statslab.cam.ac.uk), Statistical Laboratory, DPMMS, University of Cambridge, Cambridge, CB3 0WB, United Kingdom, and **Amanda Turner**. *Small-particle limits in a regularized Laplacian growth model.*

We study a regularized version of the Hastings-Levitov model of Laplacian random growth. In addition to the usual feedback parameter  $\alpha > 0$ , this regularized version features a smoothing parameter  $\sigma > 0$ . Simulations of the resulting growth processes reveal non-trivial features that differ from those observed in HL(0). We prove convergence of random clusters, in the limit as the size of the individual aggregating particles tends to zero, to deterministic limits, provided the smoothing parameter does not tend to zero too fast. We also study scaling limits of the harmonic measure flow on the boundary, and show that it can be described in terms of stopped Brownian webs on the circle. In contrast to the case  $\alpha = 0$ , the flow does not always collapse into a single Brownian motion, which can be interpreted as a random number of infinite branches being present in the clusters. (Received January 15, 2014)