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Guy René David* (guy.david@math.u-psud.fr), Université de Paris Sud, Laboratoire de mathématiques, 91400 Orsay, France. *Harmonic measure for domains with a lower dimensional boundary.*

We plan to report on joint work with Max Engelstein Joseph Feneuil, and Svitlana Mayboroda, concerning a way to define an analogue of Harmonic Measure in domains with a lower dimensional boundary E . In fact, this is rather elliptic measure, associated to a divergence form operator, with coefficients that are allowed to tend to infinity at E , typically like a power of the distance. This allows one to define an elliptic measure with the usual properties, and then we study the relation between its absolute continuity with respect to the Hausdorff measure on E , in relation to the rectifiability of E . Interesting connected questions arise. (Received January 27, 2019)