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Patrick R Driscoll* (pdriscol@math.ucsd.edu), 9500 Gilman Drive, #0112, La Jolla, CA 92093. *Smoothness of Density for the Area Process of Fractional Brownian Motion*. Preliminary report.

We consider a process given by a two-dimensional fractional Brownian motion with Hurst parameter $\frac{1}{3} < H < \frac{1}{2}$, along with an associated Lévy area, and prove the smoothness of a density for this process with respect to Lebesgue measure. (Received September 21, 2010)