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DoYong Kwon* (doyong@jnu.ac.kr), Department of Mathematics, Chonnam National University, Gwangju, 61186, South Korea. *A singular function from Sturmian continued fractions.*

For $\alpha \geq 1$, let $s_\alpha(n) = \lceil \alpha n \rceil - \lceil \alpha(n-1) \rceil$. A continued fraction $C(\alpha) = [0; s_\alpha(1), s_\alpha(2), \dots]$ is considered and analyzed. Appealing to Diophantine approximation, we investigate the differentiability of $C(\alpha)$, and then show its singularity: $C'(\alpha) = 0$ for almost every α . (Received September 23, 2018)