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 $C(\alpha) = [0; s_\alpha(1), s_\alpha(2), \ldots]$ 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 $\alpha$. (Received September 23, 2018)