

HÖLDER CONTINUITY AND WAVELETS

— ERRATUM —

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This list of mistakes does not pretend to be exhaustive; it only contains the mistakes I have spotted until now.

- In Proposition 1.2.4 (page 16), we add the following assumption on f :

$$\liminf_{x \rightarrow x_0} \frac{\log |f(x) - f(x_0)|}{\log |x - x_0|} \leq 1.$$

In the proof of this proposition, we show that

$$\liminf_{x \rightarrow x_0} \frac{\log |f(x) - f(x_0)|}{\log |x - x_0|} \geq H_f(x_0).$$

In order to prove that this inequality is an equality, two cases actually appear. If $H_f(x_0) = 1$, we directly have the conclusion with the added assumption. If $H_f(x_0) \in [0, 1)$, we proceed as in the thesis.

- In Theorem 2.4.1 (page 28), we replace the term $\frac{1}{2n}C_2(n)$ by $\frac{1}{n}C_2(n)$ in the upper bound.
- On page 31, we only have $h_{\mathcal{C}_1}([\mathbf{a}^{(3)}]) \geq 1$ (and not $h_{\mathcal{C}_1}([\mathbf{a}^{(3)}]) = 1$). In fact, $H_{\mathcal{C}_1}([\mathbf{a}^{(3)}]) = 1$.