Erratum to the paper "Subdivision by WAVES – Weighted AVEraging Schemes" by Qi Chen and Hartmut Prautzsch

[Dolomites Research Notes on Approximation, 6, 9-19, 2013]

Qi Chen and Hartmut Prautzsch chenqi@ira.uka.de and prautzsch@kit.edu Karlsruhe Institute of Technology, Germany

October 11, 2013

The first condition $\lim_{k\to\infty} r_k/2^k = 0$ of Theorem 3.1 on page 11 should be replaced by $\lim_{l\to\infty} \sum_{k=l}^{\infty} r_k/2^k = 0$. Only with this stronger assumption,

$$\sup_{\mathbf{x}\in D} \|\mathbf{s}_k^n(\mathbf{x}) - \mathbf{s}_{k-1}^n(\mathbf{x})\| \le \frac{2(n+2+r_k)}{2^{k-1}} \|\nabla \mathcal{C}\|_{\infty}$$

implies that $(\mathbf{s}_k^n)_{k\in\mathbb{N}}$ forms a Cauchy sequence.

Similarly, the last condition

$$\lim_{k \to \infty} (1 - \varepsilon)^k r_k = 0$$

of Theorem 3.1 should be replaced by

$$\lim_{l \to \infty} \sum_{k=l}^{\infty} (1-\varepsilon)^k r_k = 0 \; .$$