

Proof of Proposition 2.1. In the second displayed equation, after (50), last inequality. If we use this inequality and follow the remaining arguments we then reach

$$\int_{B_s} |Dg|^2 \leq 2 \int_{B_s \setminus L} |Dh|^2 + CE^{1+\delta} r^m$$

instead of (50).

One should instead use:

$$\begin{aligned} &\leq \underbrace{\int_{B_{s-rE^\theta}} ((|Dh|\mathbf{1}_{B_s \setminus L}) * \varphi_{rE^\gamma})^2 }_I + \underbrace{\int_{B_{s-rE^\theta}} ((|Dh|\mathbf{1}_{B_s \cap L}) * \varphi_{rE^\gamma})^2 }_{II} \\ &\quad + 2 \underbrace{\int_{B_{s-rE^\theta}} (|Dh|\mathbf{1}_{B_s \cap L}) * \varphi_{rE^\gamma} (|Dh|\mathbf{1}_{B_s \setminus L}) * \varphi_{rE^\gamma} }_{III} . \end{aligned}$$

The integrals I and II are estimated as in the paper. Since, moreover, $I \leq CE r^m$, using Cauchy-Schwartz and the estimate for II we reach $III \leq CE^{3/2-m\gamma/2-\alpha} r^m$. For a suitable δ , (47) implies then $III + II \leq CE^{1+\delta} r^m$. This shows indeed (50).