

SHEET 5

Exercise 1

Let $\Lambda_n \uparrow \mathbb{Z}^d$ s.t. $\frac{|\partial\Lambda_n|}{|\Lambda_n|} \xrightarrow[n \rightarrow \infty]{} 0$. Let (w_n) seq of b.c.

Prove that $\lim_{n \rightarrow \infty} f_{\Lambda_n}^{w_n}(h) = f(h)$

• Give an example of $\Lambda_n \uparrow \mathbb{Z}^d$ and (w_n) s.t.

$$f_{\Lambda_n}^{w_n}(h) \not\xrightarrow[n \rightarrow \infty]{} f(h)$$