

Exercises

E18.22 [1K2] Prerequisites: [1HR], [OVC], [1JG]. [3]. Difficulty: *.

Let now $I \subseteq \mathbb{R}$ be a closed and bounded interval. Let $f_n : I \rightarrow \mathbb{R}$ continuous functions, and suppose that the sequence (f_n) is equicontinuous and bounded (i.e. $\sup_n \|f_n\|_\infty < \infty$). Show that there is a subsequence f_{n_k} that converges uniformly.

Solution 1. [1K3]