

# On Locally Uniformly Rotund Renorming of the Space of Continuous Functions on a Compact Admitting a Fully Closed Projection

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We show that if the compact space  $X$  admits a fully closed projection onto a compact  $Y$  such that  $C(Y)$  admits an equivalent locally uniformly rotund (LUR) norm, as do the spaces  $C(\pi^{-1}(y))$  for all  $y$  in  $Y$ , then  $C(X)$  is also LUR renormable. A continuous map  $\pi : X \rightarrow Y$  between Hausdorff compacta is called fully closed if the intersection  $\pi(A) \cap \pi(B)$  is finite whenever  $A$  and  $B$  are closed disjoint subsets of  $X$ . As a main corollary, we prove that  $C(K)$  admits an equivalent LUR norm if  $K$  is a Fedorchuk compact of finite spectral height.

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