

# On uniformly continuous surjections between function spaces

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We consider uniformly continuous surjections between  $C_p(X)$  and  $C_p(Y)$  (resp,  $C_p^*(X)$  and  $C_p^*(Y)$ ) and show that if  $X$  has some dimensional-like properties, then so does  $Y$ . In particular, we prove that if  $T : C_p(X) \rightarrow C_p(Y)$  is a continuous linear surjection, then  $\dim Y = 0$  if  $\dim X = 0$ . This provides a positive answer to a question raised by Kawamura-Leiderman [1].

## References

- [1] K. Kawamura and A. Leiderman, *Linear continuous surjections of  $C_p$ -spaces over compacta*, Topology Appl. 227 (2017), 135–145.

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\*This is joint work with Ali Emre Eysen (Trakya University, Edirne, Turkey).