133. Zvi Artstein and Gerald Beer, Making continuous functions Lipschitz. Rocky Mountain Journal of Mathematics 54 (2024), 1231-1240.

Abstract.

Let (X, τ) be a metrizable topological space and let (Y, ρ) be a metric space. Let Ω be a family of bounded continuous functions from X to Y. We show that the family is Lipschitzian with respect to some compatible metric on X if and only if the family can be written as a countable union of pointwise equicontinuous subfamilies. From this, we easily characterize those families of continuous functions between metrizable spaces that are Lipschitzian with respect to appropriately chosen metrics on the domain and target space.

1