



Seminario Rubio de Francia

Conferencia

por

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Título:

Making continuous functions Lipschitz.

Abstract: Let $\langle X, \tau \rangle$ be a metrizable topological space and let $\langle Y, \rho \rangle$ 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 d on X if and only if the family can be written as a countable union of pointwise equicontinuous subfamilies. In this case, d can be chosen to be bounded. We present an example of a pointwise equicontinuous family of real-valued unbounded functions that fails to be Lipschitzian with respect to any compatible metric on the domain space where the target space is equipped with the Euclidean metric. From our positive result, 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, answering a question implicitly posed by S. Cobzaş, R. Miculescu and A. Nicolae in their recent monograph.

This is joint work with Zvi Artstein of the Weizmann Institute, Rehovot, Israel.

Fecha: Lunes, 27 de junio de 2022.

Hora: 12:00 horas.

Lugar: Aula 07, edificio de Matemáticas, primera planta.

Web: <http://anamat.unizar.es/seminario.html>

<http://eventos.unizar.es/52859/detail/seminario-rubio-de-francia.html>