

Spaces with an M -diagonal

DAVID GUERRERO SÁNCHEZ *

Universidad Autónoma Metropolitana Xochimilco

dguerrero@correo.xoc.uam.mx

In this talk we will prove that if X is a Tychonoff space and $X^2 \setminus \Delta$ is dominated by a second countable space then X is cosmic. This solves an open problem of Cascales, Orihuela and Tkachuk (see[COT]). We also consider the case when X is compact and $X^2 \setminus \Delta$ is dominated by a metric space M ; in this situation we show that if such domination is strong, then the tightness of X is bounded by the weight of M

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