

Institut Universitari de Matemàtiques i Aplicacions de Castelló · IMAC

## SEMINARIO IMAC DE ANÁLISIS

we

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## Takahashi convexity structures for T<sub>0</sub>-quasi-metric spaces

**ABSTRACT:** We define and investigate convexity structures in the sense of Takahashi in  $T_0$ -quasi-metric spaces. We observe that several important results about convexity structures in metric spaces can be generalized to the quasi-metric setting.

Furthermore various interesting additional conditions that such convexity structures can satisfy are investigated.

We observe that these convexity structures naturally occur in asymmetrically normed real vector spaces and q -hyperconvex  $T_0$ -quasi-metric spaces.