

## عنوان مقاله:

Formal balls of Q-categories

## محل انتشار:

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## خلاصه مقاله:

The construction of the formal ball model for metric spaces due to Edalat and Heckmann was generalized to Q-categories by Kostanek and Waszkiewicz, where Q is a commutative and unital quantale. This paper concerns the influence of the structure of the quantale Q on the connection between Yoneda completeness of Q-categories and directed completeness of their sets of formal balls. In the case that Q is the unit interval  $[0, 1]$  equipped with a continuous t-norm  $\&$ , it is shown that in order that Yoneda completeness of each Q-category be equivalent to directed completeness of its set of formal balls, a necessary and sufficient condition is that the t-norm  $\&$  is Archimedean.

## کلمات کلیدی:

Q-category, formal ball, continuous t-norm, quantale

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1633817>

