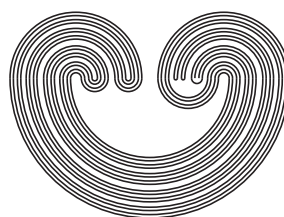


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I-FAVORABLE SPACES: REVISITED

by

VESKO VALOV

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ABSTRACT. The aim of this paper is to extend the external characterization of I-favorable spaces obtained in [13]. This allows us to obtain a characterization of compact I-favorable spaces in terms of quasi κ -metrics. We also provide proofs of some author's results announced in [14].

1. INTRODUCTION

The aim of this paper is to extend the external characterization of I-favorable spaces obtained in [13]. We also provide proofs of some author's results announced in [14]. All topological spaces are Tychonoff and the single-valued maps are continuous.

P. Daniels, K. Kunen and H. Zhou [2] introduced the so called *open-open game*: Two players take countably many turns, a round consists of player I choosing a non-empty open set $U \subset X$ and II choosing a non-empty open set $V \subset U$. Player I wins if the union of II's open sets is dense in X , otherwise II wins. A space X is called *I-favorable* if player I has a winning strategy. This means, see [6], there exists a function $\sigma : \bigcup_{n \geq 0} \mathcal{T}_X^n \rightarrow \mathcal{T}_X$ such that the union $\bigcup_{n \geq 0} U_n$ is dense in X for each game

$$(\sigma(\emptyset), U_0, \sigma(U_0), U_1, \sigma(U_0, U_1), U_2, \dots, U_n, \sigma(U_0, U_1, \dots, U_n), U_{n+1}, \dots),$$

where all U_k and $\sigma(\emptyset)$ are non-empty open sets in X , $U_0 \subset \sigma(\emptyset)$ and $U_{k+1} \subset \sigma(U_0, U_1, \dots, U_k)$ for every $k \geq 0$ (here $\mathcal{T}_X$ is the topology of X).

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