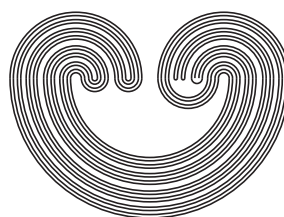


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PROPERTIES OF ENDPOINTS AND OPPOSITE ENDPOINTS OF HEREDITARILY DECOMPOSABLE CHAINABLE CONTINUA (HDCC)

by

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**PROPERTIES OF ENDPOINTS AND OPPOSITE
ENDPOINTS OF HEREDITARILY DECOMPOSABLE
CHAINABLE CONTINUA (HDCC)**

AMEEN A. ALHASSAN

ABSTRACT. Let X be an hereditarily decomposable chainable continuum with $X = H \cup K$ where H and K are proper subcontinua and $H \cap K$ is nondegenerate. In this paper we consider properties of endpoints and opposite endpoints of such continuum X and the subcontinua H and K .

1. INTRODUCTION

The Knaster continuum K is an example of chainable continuum with exactly one endpoint k and no opposite endpoints [5]. The double Knaster continuum is decomposable with no endpoints and no opposite endpoints [2]. Let H be an arc with endpoints h_1 and h_2 . If Y is a chainable continuum with $Y = H \cup K$ and k and h_1 lie in $H \cap K$ as shown in Figure 3 (see [3, p. 44]), then Y is decomposable continuum with exactly one endpoint h_2 and no opposite endpoints. Does there exist an hereditarily decomposable chainable continuum X with either zero or one endpoint? In 2017, Adikari [1] provided an answer to this question as presented here in Theorem 1.6. In Section 2 of this paper, we provide results on the possibility of endpoints and opposite endpoints of such a continuum X .

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Key words and phrases. Hereditarily decomposable continuum, chainable continuum, nondegenerate, unicoherent, irreducibility, endpoint, opposite endpoints.

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