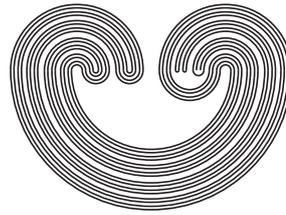


<http://topology.auburn.edu/tp/>

TOPOLOGY PROCEEDINGS



Volume 55, 2020

Pages 65–75

<http://topology.nipissingu.ca/tp/>

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

by

AMEEN A. ALHASSAN

Electronically published on April 11, 2019

This file contains only the first page of the paper. The full version of the paper is available to Topology Proceedings subscribers. See <http://topology.auburn.edu/tp/subscriptioninfo.html> for information.

Topology Proceedings

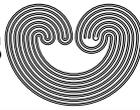
Web: <http://topology.auburn.edu/tp/>

Mail: Topology Proceedings
Department of Mathematics & Statistics
Auburn University, Alabama 36849, USA

E-mail: topolog@auburn.edu

ISSN: (Online) 2331-1290, (Print) 0146-4124

COPYRIGHT © by Topology Proceedings. All rights reserved.



**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 .

2010 *Mathematics Subject Classification.* Primary 54F15, 54F50; Secondary 54F55, 54B05.

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

©2019 Topology Proceedings.

This file contains only the first page of the paper. The full version of the paper is available to Topology Proceedings subscribers. See <http://topology.auburn.edu/tp/subscriptioninfo.html> for information.