

## Cantor Connectedness of Uniform Spaces

---

Nikita Shekutkovski\*, Zoran Misajleski†, Tatjana Atanasova  
Pachemska‡

\*SS Cyril and Methodius University, Faculty of Natural Sciences and Mathematics, Institute of Mathematics, Skopje

†SS Cyril and Methodius University, Faculty of Civil Engineering, Department of mathematics and Informatics, Skopje

‡Goce Delchev University, Faculty of Computer Sciences, Shtip

The first definition of connectedness was given by Cantor in the second half of 19<sup>th</sup> century.

We spread the Cantor definition to uniform spaces and show that it is equivalent to standard definition:

A uniformly connected space is a uniform space  $X$  such that every uniformly continuous function from  $X$  to a discrete uniform space is constant. A uniform space  $X$  is called uniformly disconnected if it is not uniformly connected.

By this, is justified to use the notion Cantor connectedness for uniform connectedness. We prove several properties of Cantor connectedness for uniform spaces, using the notion of chain.