

A Fedorchuk Compact Space with Some Implications for Renormings of Banach Spaces

Todor Manev¹

¹Sofia University “St. Kliment Ohridski“, Sofia, Bulgaria

Abstract

We discuss a technique developed by V. V. Fedorchuk that has been used to solve numerous problems in general topology. Compact spaces constructed using this technique are now widely known as Fedorchuk compacta. Recent interest in this class has emerged in the context of renormings of Banach spaces. A result of the author roughly states that the space of continuous functions on a Fedorchuk compact has good renorming properties as long as the compact satisfies several key requirements. Assuming the diamond principle, we construct an example, showing that the requirements in the theorem are essential.