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## Strong sequences and Cichoń diagram

The strong sequences method was published for the first time by Russian mathematician Efimov in [1] as a useful combinatorial method for proving some well known theorems in dyadic spaces (i.e. continuous images of the Cantor cube). Efimov proved that in the subbase of the Cantor cube strong sequences does not exist. This method was investigated by Kulpa, Plewik and Turzański (papers published in 90's of the last century and at the beginning of this century, for examples [3], [4]). Among others they proved some relations between the strong sequences method and Erdős-Rado theorem. In paper [2] there was introduced the cardinal number associated with strong sequences and there were proved some relations between this number and other well known invariants such as: calibre, boundeness, saturation. During the talk there will be shown other relations between the strong sequences number and invariants which are present in Cichoń diagram.

- [1] Efimov, B. A., Diaditcheskie bikompakty, (in Russian), Trudy Mosk. Matem. O-va 14 (1965), 211–247.
- [2] Jureczko, J., On inequalities among some invariants, *Mathematica Aeterna*, Vol. 6 no. 1 (2016), 87–98.
- [3] Kulpa, W., Plewik, Sz., Turzański, M., Applications of Bolzano-Weiestrass method, *Topology Proceedings* Vol. 22, (1997), 237–245.
- [4] Turzański, M., Strong sequences and the weight of regular spaces, *Comment. Math. Univ. Carolinae* Vol. 33, no. 3, (1992), 557–561.