

Ideal version of selection principle $S_1(\mathcal{P}, \mathcal{R})$

The main objects of our research are selection principles which have been introduced by M. Scheepers. He has described the basic relations among different kinds of selection principles which are summarized in well-known Scheepers' Diagram. This area is so widespread and nowadays there have been many various results published so far.

We investigate ideal versions of Scheepers' $S_1(\Gamma, \Gamma)$ -space, Arkhangel'skii's α_4 property and Scheepers' monotonic sequence selection property, i.e. $S_1(\mathcal{I}-\Gamma, \mathcal{J}-\Gamma)$ -space, $S_1(\mathcal{I}-\Gamma_{\mathbf{0}}, \mathcal{J}-\Gamma_{\mathbf{0}})$ -space and $S_1(\mathcal{I}-\Gamma_{\mathbf{0}}^m, \mathcal{J}-\Gamma_{\mathbf{0}})$ -space, respectively. We also show that cardinal invariant $\lambda(\mathcal{I}, \mathcal{J})$ introduced in [1] is their common critical cardinality. Therefore, we are interested in this combinatorial characteristic as well. All our results are collected in [2].

References

- [1] Šupina J.: *Ideal QN-spaces*, J. Math. Anal. Appl. 434 (2016) 477-491.
- [2] Šottová V., Šupina J.: *Principle $S_1(\mathcal{P}, \mathcal{R})$: Ideals and functions*, preprint.