

Abstract: Generalized Egorov's statement for ideals

Michał Korch, University of Warsaw

We study problems related to Egorov's Theorem, which describes a relation between convergence and measure. Egorov's Theorem can be generalized to some notions of ideal convergences (see e.g. [2]), and T. Weiss has proven ([4]) that the generalized Egorov's statement (i.e. the theorem without the assumption on measurability) is independent from ZFC. Integrating both ideas, we prove that the generalized Egorov's statement as well as its negation are consistent with ZFC in different cases of ideal convergence ([1]). We also annotate some further generalizations obtained by M. Repický ([3]).

References

- [1] Michał Korch. Generalized Egorov's statement for ideals. *Real Anal. Exchange*, 42(2), 2017.
- [2] Nikodem Mrożek. Ideal version of Egorov's theorem for analytic P-ideals. *J. Math. Anal. Appl.*, 349:452–458, 2009.
- [3] Miroslav Repický. Ideal generalizations of Egoroff's theorem. preprint, 2017.
- [4] Tomasz Weiss. A note on generalized Egorov's theorem. preprint, 2004.