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My research concentrates on interactions between set theory (or more generally foundations of mathematics) and analysis; I am fond of applications of set-theoretical and model-theoretical tools to analysis and the theory of Banach spaces especially.

The main object of my investigations is the classical quotient Banach space  $\ell_\infty/c_0$  isomorphically isometric to the space of continuous functions on  $\omega^*$ , a Stone space of Boolean algebra  $\mathcal{P}(\omega)/\text{fin}$ . I am mostly interested in constructing special operators on  $\ell_\infty/c_0$  under *PFA* or its weaker versions.

Most recently, I have been looking at the possibilities of using ultrafilters and some elements of the Ramsey space theory in order to construct special Banach spaces [1][7]. My current efforts in this topic regard  $\ell_p$ -like Banach spaces possessing unconditional bases with some additional features [5]. Nice reference for some problems connecting Banach spaces and set theory is [2].

## References

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