

**Multisublinear Maximal Operators in Banach Function Lattices**

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**Abstract:** Our goal is to discuss general multisublinear operators generated by quasi-concave functions between weighted Banach function lattices. These operators, in particular, generalize the Hardy–Littlewood and fractional maximal functions playing an important role in Harmonic Analysis. We prove that under some general geometrical assumptions on Banach function lattices two-weight weak type and also strong type estimates for these operators are true. As special cases we provide boundedness results for fractional maximal operators in concrete function spaces.

Weighted criteria for multilinear fractional integrals in Lebesgue spaces will be also treated.

The talk is based on the joint papers with V. Kokilashvili and M. Mastlyo.