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Q-monotone spline smoothing

Several results on q -monotone spline smoothing will be discussed (this is a joint work with D. Leviatan and A. Prymak). In particular, we show how one can constructively smooth any monotone or convex piecewise polynomial function (ppf) (or any q -monotone ppf, $q \geq 3$, with one additional degree of smoothness) to be of minimal defect while keeping it close to the original function in the L_p -(quasi)norm.

One of the applications of this smoothing will be discussed in this session by A. Prymak in his talk "Three-monotone spline approximation".