# Error bounds for moving least squares in terms of a growth function

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Error bounds in terms of growth functions were developed in [2, 1, 3] for radial basis interpolation as an alternative to the standard "fill distance" framework which is in general too pessimistic for local error. This approach has recently been applied to weighted least squares [4], where the estimates and numerical experiments suggest that the weights $\|z-x_j\|_2^{-2q}$ are preferable for the order $q$ least squares estimation of the function value at $z$ from the known values at $x_j$'s. In the talk I will present applications of these error bounds to moving least squares and some numerical experiments.

## References

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[4] O. Davydov and R. Schaback. Minimal numerical differentiation formulas, preprint. arXiv:1611.05001