Jan Vybíral
Czech Technical University Prague, Czech Republic

Lower bounds for numerical integration and approximation

We present recent results on lower bounds on numerical integration and approximation in Hilbert spaces based on a series of publications jointly written with A. Hinrichs, D. Krieg, and E. Novak. We compare the technique of a bump-function with the so-called Schur technique. We also identify the cases, where there is a gap between the approximation of a function using arbitrary linear functionals and using only function values.