

# OPTIMAL RECOVERY AND BEST QUADRATURES FOR HARDY–SOBOLEV CLASSES

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Denote by  $H_\infty^r$  the class of analytic in the unit disk  $D$  functions  $f$  for which  $|f^{(r)}(z)| \leq 1$ ,  $z \in D$ . Using a general approach for the construction of optimal recovery methods of linear functionals, we obtain optimal recovery methods and best quadrature formulas for Hardy–Sobolev classes  $H_\infty^r$ . We find a linear space of analytic functions which play the same role as polynomials splines in the similar problem for Sobolev classes.