

# Gauss-type rules with applications to integral equations

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## Abstract

In this talk, some last extensions of the anti-Gauss quadrature rule will be presented. The application of such rules to integral equations will be also explored. Specifically, Fredholm integral equations of the second kind of the type

$$f(y) + \int_{\mathcal{D}} k(x, y) f(x) d\mu(x) = g(y), \quad y \in \mathcal{D},$$

will be considered. Here, the kernel  $k$  and right-hand side  $g$  are given, the function  $f$  is to be determined, and  $d\mu(x)$  is a nonnegative measure supported on a bounded or unbounded domain  $\mathcal{D} \subset \mathbb{R}$ .

Finally, perspectives of research will be discussed.

## References

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