Generalised higher order Freud polynomials

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Gabor Szegő pioneered much of what is known in the theory of orthogonal polynomials on finite intervals but did not carry his ideas over to infinite intervals, despite there being significant differences. In the second half of the 20th century, starting with the work of Géza Freud on orthogonal polynomials on \mathbb{R} , the study of Freud-type polynomials and their generalisations flourished. In this talk I will discuss symmetric semi-classical polynomials orthogonal with respect to generalisations of higher order Freud weights.