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WEIGHTS WHOSE BIORTHOGONAL POLYNOMIALS ADMIT A RODRIGUES FORMULA

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Abstract of Talk: Let α be greater than zero and $\psi(x) = (x \text{ to the power } \alpha)$. Let $w(x)$ be a nonnegative integrable function on an interval I . Let P_n be a polynomial of degree n determined by the biorthogonality conditions: $\int_I (P_n(x) (\psi(x) \text{ to the power } j) w(x) dx) = 0$, for $j=0, 1, \dots, n-1$. We determine for which weights $w(x)$, P_n admits an analogue of the classical Rodrigues formula for orthogonal polynomials.