

**Orthogonal polynomials arising from the expansion of first degree polynomials**

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**12.04**   **Shara Lalo**  
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**Time:** Monday 22.07., 12:00 - 12:30, Room HS 6

**Abstract:** Expansions of univariate polynomials of the first degree with real and complex coefficients; naturally produce many well-known polynomials such as; Chebyshev, Fibonacci, Pell, Jacobsthal, Fermat polynomials and many new orthogonal polynomials. We will present new differential equations related to orthogonal polynomials arising from the expansion of first-degree polynomials. The roots, weights, generating functions and equivalent Rodriguez type formulas for the orthogonal polynomials will also be presented. This is joint work with Zagros Lalo.