Multiple orthogonal polynomials associated with confluent hypergeometric functions

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Abstract: In this talk we analyse a new family of multiple orthogonal polynomials of the hypergeometric type, whose orthogonality weights can be described using confluent hypergeometric functions (also known as Kummer or Tricomi functions) of the second kind, discuss some of their differential and recursive properties and exhibit an explicit formula for the polynomials. Particular cases are related with threefold symmetric multiple orthogonal polynomials.

This is ongoing work with Ana Loureiro.