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In this talk I will retrace the history of Cauchy biorthogonal polynomials, starting with the Degasperis-Procesi equation and its inverse problem which motivated the theory of Cauchy biorthogonal polynomials, and culminating in the axiomatic theory introduced by M. Bertola, M. Gekhtman and JS. I will describe how this theory fits with the recently studied system of nonlinear partial differential equations introduced by Geng and Xue. In the second half of this talk I will review the Cauchy-Laguerre two-matrix model in order to illustrate the relevance of Cauchy biorthogonal polynomials to the theory of random multi-matrix models. This talk is based on speaker's recent work with H. Lundmark and past work with M. Bertola and M. Gekhtman. (Received February 16, 2016)