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Renato Spigler* (spigler@mat.uniroma3.it), Department of Mathematics, University "Roma Tre", 00146 Rome, Italy. *Liouville-Green (WKB) asymptotics for second-order systems of difference equations.*

The celebrated WKB asymptotic approximation for second-order linear differential equations, made rigorous by F.W.J. Olver, has been extended in several directions. One concerns second-order linear *systems* of *differential* equations, another, more recently developed, regards the analogous case of *systems* of *difference* equations. Asymptotic representations for a base of solutions to a class of such systems have been obtained. Precise and rigorous bounds for the error terms have been also derived, and applications made. (Received August 13, 2007)