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Aimo Hinkkanen* (aimo@math.uiuc.edu), Department of Mathematics, University of Illinois at Urbana-Champaign, Urbana, IL 61801. *Painlevé transcendents of small growth.*

Transcendental solutions of the second Painlevé equation are meromorphic functions in the complex plane, and have order (as defined in terms of the Nevanlinna characteristic) $3/2$ or 3 , and the transcendental solutions of the fourth Painlevé equation have order 2 or 4 . The solutions of order $3/2$ or 2 are exceptional. Ilpo Laine and the speaker have developed a criterion in terms of an auxiliary function to determine which order one obtains for a transcendental solution. In this talk we discuss the determination of the order for the second Painlevé equation in those cases when it turns out to be the smaller one. (Received February 10, 2014)