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Youmin Lu* (ylu@bloomu.edu), Department of Math. and Computer Science, Bloomsburg University, Bloomsburg, PA 17821, and Huizeng Qin (qinhz_000@163.com), Department of Math. & Information Technology, Shadong University of Technology, 255049 Zibo, Shandong, Peoples Rep of China. Asymptotics of the Solutions to the General Sixth Painlevé Equation.

Except for their significance in mathematical theory, the Painlenvé equations have been proved to have very rich physical applications in the areas such as fluid dynamics, quantum spin systems, relativity, soliton and so on. In this talk, we study the sixth Painlevé equation, find and prove the existence of several groups of asymptotics of its solutions as its independent variable approaches infinity. (Received December 23, 2005)