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Nadejda Dyakevich* (dyakevic@csusb.edu), 5500 University Parkway, San Bernardino, CA 92407, and **Sarah Bahk** and **Stefan Johnson**. *Blow-up Behavior of Solutions for Riccati Initial-Value Problems*.

Riccati equation has been studied since the early 1700s, and today there are many different methods of solving its special cases. In this talk we will discuss long term behavior of solutions for initial-value problems that involve Riccati equations of the form $y'(t) = a(t)y^2(t) + b(t)y(t) + c(t)$. We will use comparison method to derive conditions for solutions to stay bounded, as well as conditions for unbounded growth in finite time (blow-up). This talk is accessible to a general audience. (Received September 20, 2007)