1128-45-137   **D. P. Dwiggins*** (`ddwiggns@memphis.edu`), 373 Dunn Hall, University of Memphis, Memphis, TN 38152. *Fixed Point Theory, Integral Equations, and Resolvents.*

During the Fall 2015 Southeastern sectional AMS meeting, conversations with our session attendees indicated an interest in learning more about how fixed point theory is used to investigate behavior of solutions to Volterra integral equations; this is a belated response to that request. After highlighting several basic approaches, including how some recently published results might be generalized, we will also briefly discuss how fixed point theory applies to the resolvent equation. This talk concludes with a presentation of final results from a study on approximating the resolvent using a convolution series. The main conclusion is that, in most cases of interest, it appears only the first two terms in this series are needed to determine the nature of the behavior of solutions. (Received February 22, 2017)