1030-91-421   **Kenneth L. Judd*** (`judd@hoover.stanford.edu`), Hoover Institution, 434 Galvez Mall, Stanford University, Stanford, CA 94305-6010, and **Karl Schmedders** (`k-schmedders@kellogg.northwestern.edu`), Kellogg School of Management, 2001 Sheridan Rd, Evanston, IL 60208. *Finding All Solutions to Dynamic Stochastic Games.*

Dynamic games require solving large polynomials systems, many in excess of 10^6 equations. However, many games have a directed acyclic graph structure allowing us to decompose the problem into a sequence of smaller systems of size 100 to 1000. We describe applications of homotopy methods to solve such systems, and computational strategies that exploit numerical algebraic theory efficiently solve large systems. (Received August 08, 2007)