## 1077-34-1224 **Tingting Fang\*** (tfang@math.fsu.edu), Department of Mathematics, Florida State University, Tallahassee, FL 32306, and **Mark van Hoeij**. Solve Linear Differential Equations in terms of Hypergeometric Functions.

The goal in this talk is to solve second order linear differential equations in terms of hypergeometric  ${}_{2}F_{1}$  functions. We use 2-descent to reduce the equation to another differential equation with fewer singularities. Next, we treat equations with 4 true singularities (plus any number of removable singularities) by constructing tables of Belyi or near Belyi maps. (Received September 18, 2011)