

Overview of Models

The proposed methodology requires solving a disjunctive program with a disjunction at every finite element in the discretization scheme or equivalently solving an equilibrium problem with a complementarity at every finite element. There exist several methods to solve problems of these forms. Here we consider 4 different methods. First, an MIQP Model is used with fixed length finite elements. Second, an MPCC Model solved as an NLP with fixed length finite elements. Third, an MIQP Model with variable finite element lengths. Finally, an MPCC Model solved as an NLP with variable finite element lengths is considered.