

# New Results with a Formulation for the Capacitated Arc Routing Problem

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In this talk, we analyze an integer programming formulation for the Capacitated Arc Routing Problem defined on an undirected graph (CARP), which uses directed variables. For this formulation, a branch-and-cut algorithm has been implemented to solve the CARP optimally. All families of known valid inequalities for this problem and for the Rural Postman Problem, which is a particular case of the CARP, have been considered and their corresponding separation algorithms have been implemented. New classes of valid inequalities are also proposed and separated. Computational results using benchmark sets of instances will be presented.