



Título: **Shortest trails under visiting constraints**

Data: **06/06/2018**

Horário: **16:00h**

Local: **Sala de Seminários - Bloco 952**

Resumo:

Let $D=(V,A)$ be a loopless directed graph with set of vertices V and set of arcs A , and let each arc (i,j) in A , with i,j in V , be associated with a non-negative cost. The constrained shortest path tour problem (CSPTP) is NP-Hard and consists in finding a shortest trail between two distinct vertices s in V and t in V that visits at least one element of vertex disjoint subsets T_1, T_2, \dots, T_N , in this order. We formulate the CSPTP as a mixed-integer programming (MIP) model and present valid inequalities for the problem. We also design a heuristic encapsulated within a Lagrangian framework to obtain promising feasible solutions. Computational experiments performed on both randomly generated and benchmark data sets from the literature show that our MIP model consistently dominates existing CSPTP exact algorithms. It finds optimal solutions for most instances in considerably smaller execution time with respect to other approaches.

Defesa de Qualificação de Doutorado: Rommel Dias Saraiva

Escrito por Administrator

Seg, 04 de Junho de 2018 12:00

Banca:

- Prof. Dr. Rafael Castro de Andrade (MDCC/UFC - Orientador)
- Prof^a. Dr^a. Ana Karolinnna Maia de Oliveira (MDCC-UFC)
- Prof. Dr. Manoel Bezerra Campêlo Neto (MDCC/UFC)