Abstract

In this talk, we consider two different problems we have been working on recently.

In the first one, the celebrated p-median problem, one wants to choose p facility locations and allocate clients to those facility locations in order to minimize the total allocation cost. For that problem, we present a column-and-row generation algorithm based on a formulation exploiting the notion of radius. This approach allows to solve much huger instances than any other existing algorithm.

In the second problem, we determine the optimal price Air Navigation Service Providers should charge to airlines for traversing their airspace. More precisely a bilevel programming formulation is provided and a very efficient solution procedure is applied to a case study.