Séminaire

**Résumé** :

Title: ​:A solution concept for colored graphs: Characterization and Application

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We deal with the problem of sharing the revenue allocation derived from the cooperation among several transport companies. The involved companies offer travel cards which can be used in an intermodal public transport system. To solve this problem, we first describe the mathematical model through a colored graph, then we introduce a new allocation rule and we analyze its properties. We prove that this allocation rule coincides with the Shapley value of a convex game which adds significant properties to the solution, guaranteeing stability in this cooperation context. The advantages of the proposed solution are highlighted with the analysis of an application.