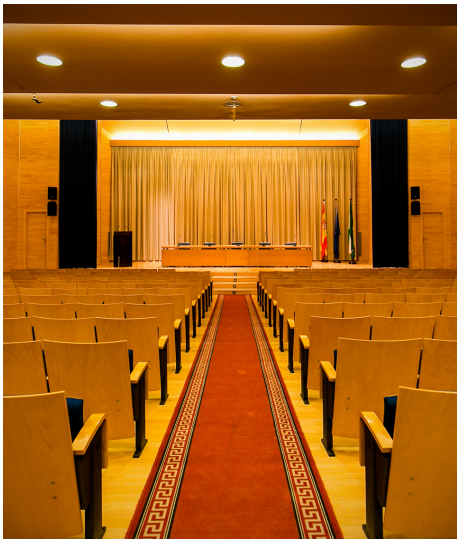
UNIVERSIDAD DE GRANADA

Departamento de
Teoría e Historia
Económica

Seminario Online: José Manuel Jiménez Gómez (Universitat Rovira i Virgili)

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Título: A claims problem approach to the cost allocation of a minimum cost spanning tree

Sala: E28

Hora: 12:30

Abstract: We propose to allocate the cost of a minimum cost spanning tree by defining a claims problem and using claims rules, then providing easy and intuitive ways to distribute this cost. Depending on the starting point that we consider, we define two models. On the one hand, the benefit-sharing model considers individuals' costs to the source as the starting point, and then the benefit of building the efficient tree is shared by the agents. On the other hand, the costs-sharing model starts from the individuals' minimum connection costs (the cheapest connection they can use), and the additional cost, if any, is then allocated. As we prove, both approaches provide the same family of allocations for every minimum cost spanning tree problem. These models can be understood as a central planner who decides the best way to connect the agents (the efficient tree) and also establishes the amount each agent has to pay. In so doing, the central planner takes into account the maximum and minimum amount they should pay and some equity criteria given by a particular (claims) rule. We analyze some properties of this family of cost allocations, specially focusing in coalitional stability (core selection), a central concern in the literature on cost allocation.

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