



CURSO

FACULTAD DE CIENCIAS ECONÓMICAS Y EMPRESARIALES

Introduction to the models of preference aggregation in multicriteria and multiagent decision theory

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The course intends to provide an introduction to the representation and the aggregation of preferences in the context of multicriteria and multiagent decision theory. The aggregation of interacting multicriteria or multiagent preferences is based on weighted averaging or ordered weighted averaging, as well as generalizations of these two averaging functions, in particular Choquet integration. As an example of ordered weighted averaging aggregation, we discuss the representations of the majorization relation by means of welfare functions. We also consider dynamic aggregation models of DeGroot's type and we discuss the linear algebra and consensual convergence properties of these models. Finally, we introduce a non-linear generalization of the linear consensus dynamics of DeGroot's model.

Duración: 15 horas

Lunes 4 de julio (11h-14h): Aggregation in multicriteria decision making.

Martes 5 de julio (11h-14h): Majorization and its representations, the Gini e Bonferroni welfare functions.

Miércoles 6 de julio (11h-14h): Dynamic aggregation and DeGroot's model in multiagent decision making.

Jueves 7 de julio (11h-14h): A model of dynamic aggregation based on the classical DeGroot's approach.

Viernes 8 de julio (11h-14h): Non-linear consensus dynamics in multiagent decision making.



4-8 de julio de 2022. Aula C4