MARMARA

U N I V E R S I T Y

FACULTY OF ARTS AND SCIENCES
DEPARTMENT OF MATHEMATICS

SPACES OF INTEGRABLE FUNCTIONS WITH RESPECT TO VECTOR CAPACITIES AND APPLICATIONS

Prof. Dr. Enrique A. S*Á*NCHEZ PÉREZ

ABSTRACT.

In this talk we explain a Choquet type integral for real valued functions with respect to vector-valued non-additive capacities. Following a Bartle-Dunford-Schwartz type integration method combined with the classical Choquet construction, we define two classes of integrable functions that show to be quasi-Banach function spaces. Although the result is a rather abstract structure, we show that these spaces can be used for defining models of bibliometric and econometric indices. This application lies in the fact that a relevant amount of indices in Information Science are actually defined by non-additive integrals, and can be classified in terms of either a Bochner-type norm or a Pettis-type norm.

Place : Marmara University (Göztepe Campus), GZFA09.

Date : 15 November, 2018 / 10:30.