# LSAA: Seminars

## Valuations on Banach Lattices

**Author:** Jorge Santiago Ibáñez Marcos (UCM-ICMAT)

**Time:** $30^{\text{th}}$ of April, at 11:30 p.m.   **Place:** Sala Gris 3 (ICMAT)

Valuations on convex bodies first appeared as a solution to Hilbert's Third Problem and have proved to be a useful tool in convex geometry. In particular, the characterization of valuations has shown a good deal of structure in the space of valuations. Lately, many authors have proposed different valuations on different structures, including Banach lattices. We say that $\phi : X \to \mathbb{R}$ is a valuation if

$$\phi(x \wedge y) + \phi(x \vee y) = \phi(x) + \phi(y).$$

In this talk, we will introduce valuations on Banach Lattices and will give some results characterizing them when $X$ is a $\sigma$-Dedekind complete Banach lattice and will talk about some integral representations.