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**Andreas H Hamel\*** ([hamel@yu.edu](mailto:hamel@yu.edu)), Department of Mathematical Sciences, 2495 Amsterdam Avenue, New York, NY 10033. *Set-valued optimization revisited: From minimal points to lattice solutions.*

Motivated by duality issues for vector optimization problems, Corley and Luc introduced vector optimization problems with a set-valued objective in the 1980ies. In 1997, Tanaka, Ha and Kuroiwa initiated solution concepts based on extensions of the vector order to the power set of the underlying linear space. Recently, Hamel, Löhne and collaborators have shown that set-valued optimization (only) admits a complete (duality) theory parallel to the scalar case if lattice extensions both of image and pre-image space are used. This theory also matches the needs of recent applications in mathematical finance: optimization problems for set-valued risk measures for markets with transaction costs. The talk will be a guided tour through these subjects. (Received September 22, 2010)