Decompositions and projections with respect to some classes of non-symmetric cones

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Abstract. It is known that the analysis to tackle with non-symmetric cone optimization is quite different from the way to deal with symmetric cone optimization due to the discrepancy between these types of cones. However, there are still common concepts for both optimization problems, for example, the decomposition with respect to the given cone, smooth and nonsmooth analysis for the associated conic function, conic-convexity, conic-monotonicity and etc. In this talk, we focus on issues of decompositions and projections w.r.t some classes of non-symmetric cones. These concepts and the obtained results pave a way to deal with non-symmetric cone optimization.

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