

Statistical Aspects of Data Driven Distributionally Robust Optimization

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Distributionally robust optimization (DRO) is a tool which can be used to hedge against adverse scenarios. It is therefore well suited for decision making which is guarded against potentially high impact events. In this talk, we discuss inference tools such as asymptotic confidence regions (which are optimal in some sense), asymptotic distribution of optimal decisions and values, and other statistical results for DRO formulations. We discuss the application of these results to portfolio optimization.