A Monte Carlo approach to a divergence minimization problem

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Large deviation probabilities for conditional weighted empirical measures exhibit divergences as rate functions. Reciprocally, many divergences can be seen as such rates, for specific weights. The talk is based on this remark, and states various connections between natural exponential families, their variance functions, and classes of divergences. As a direct consequence, minimization of divergences over specific constraints can be performed using a simple Monte Carlo procedure.