On some extended models of chance constraints

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The talk addresses several extensions of the tradiational setting of optimization problems under chance constraints, namely infinite systems of random inequalities ('probust' constraints), inifinite-dimensional decisions in the contex of PDE constrained optimization problems and dynamic decisions in joint chance constraints. All these models have abundant applications in energy management (e.g., gas networks under random loads, hydro reservoirs under random inflow etc.). Theoreical results and numerical examples are presented.