

1112-49-669

**Yuri S. Ledyaev\*** (ledyaev@wmich.edu), Department of Mathematics, Western Michigan University, 1903 W Michigan Ave, Kalamazoo, MI 49008. *Optimal control under finite set of evolution scenarios*. Preliminary report.

We consider a problem of control under uncertainty. This uncertainty is modeled by a finite set of scenarios of dynamic evolution of some system parameter. We develop mathematical techniques for derivation of optimality condition characterizing optimal control quasi-strategy. We demonstrate how such optimality conditions can be used for designing model predicting feedback control. (Received August 11, 2015)