Switching between investment projects: an optimal control problem

Igor Kravchenko¹,

 $^{\rm 1}$ IST-ID and CEMAT

Consider the situation when the firm has a possibility of operating in two different modes. One mode is risky and more profitable, the other one is less risky, but naturally, less profitable. At each moment of time the firm can switch between the modes paying the cost of transition. We model this situation as an optimal control problem for the firm and find the optimal strategy/behaviour for the firm. Further, we address the problem of the optimal investment time in the project that has switching modes characteristics.

This is a joint work with Cláudia Nunes and Carlos Oliveira.

References

[1] Nunes, Cláudia; Oliveira, Carlos; Kravchenko, V., Igor, *Invetment problem with switching modes*, under development