



Optimal Enterprise: Complex Activity and Mathematics of Knowledge and Human Capital

Keynote speakers: **Mikhail Belov and Dmitry Novikov**

An Enterprise is modelled and studied based on the concepts of the methodology of complex activity. The proposed representation embraces the following key aspects of an Enterprise:

Humans and their active choices as key elements of an Enterprise – Human Capital;

Nontrivial structure of the subject matter of the control, which is defined by the goal/logical structure;

Implementation of CA during all phases of its lifecycle;

Technology of CA – the system of conditions, criteria, forms, methods, and means to successfully achieve a stated goal. Technology is incorporated in the Knowledge of the Enterprise.

The Enterprise control problem is posed and solved as an aggregate of mathematical optimization problems. As a result, a harmonized set of mathematical models and methods is proposed that not only models the essential features of the Enterprise as a complex system of systems but also allows solving Enterprise control problems as formal mathematical optimization problems.