

Enhancing Technical Project Management through System Optimisation – Application to FCC-ee design

Tuesday, 25 June 2024 14:00 (25 minutes)

This talk introduces the concepts of global system optimization applied to technical projects. This approach is particularly valuable in large-scale projects, such as accelerator designs, where multi-expert teams are involved, and interfaces management is crucial. By adopting a global optimization strategy with simple tools, we can achieve economically optimized systems (considering both CAPEX and OPEX) while effectively managing project resources and priorities.

The efficacy of this methodology is showcased through its application to a segment of the FCCee accelerator design, including power converters, magnets, cooling and ventilation systems, and civil engineering. We demonstrate how this global approach aids in determining the optimal number of alcoves, ultimately minimizing project costs.

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Session Classification: Project Management Methodologies and Tools