

T3_110 THE INTERACTIVE PHYSICS FLIGHT SIMULATOR

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In this talk I present a modeling approach to the dynamics of the airplane flight aimed at designing and realizing a simple but realistic "flight simulator," able to mimic the longitudinal behavior of a real airplane. The model is implemented by using Interactive Physics simulation environment. The simulator is used to perform all the phases of a complete flight of a light commercial airplane. All the actions on plane controls are analyzed and explained in terms of equilibrium states of the system. The main objective of the obtained simulations is in making the physical phenomenon understandable to students with a basic knowledge of mechanics and not involved in specialized aerodynamics studies.