Seminário CIMA-DMAT (Universidade de Évora)

04 de Novembro de 2004, quinta-feira CLV – Anf1 – 11h30m

"Magnetic Attitude Control Systems for Small Satellites (Development, Building and Operation)"

Professor, Dr. of Sci. Michael Ovchinnikov, Keldysh Institute of Applied Mathematics of Russian Academy of Sciences and Moscow Institute of Physics & Technology (Technical University)

A number of small satellites which are equipped with passive or active magnetic attitude control systems (ACS) are presented. First, small satellites are defined and classification is introduced. Motivation and reasons to use magnetic ACS are presented. Next, the small satellite projects which the author was involved in are shown in order to demonstrate the specific problems appeared from development, simulation and building phases. Mathematical interpretations of effects obtained are discussed.