Pôle CCS / Equipe Commande / Evénement (Gratuit)

Seminar in two parts on **Decoupling:**

Part I: An Open Problem 80 Years Old; Part II: An Original Solution

by **Prof. Vladimir KUČERA** from :

Czech Institute of Informatics, Robotics, and Cybernetics, Czech Technical University, Prague

and Invited Professor by Centrale Nantes.

20/06/17: Part I- 10h30 ; Part II- 14h30 @ Amphi S, Centrale Nantes

Professor Vladimir Kučera is a worldwide known researcher in Automatic Control. He recently solved the long-standing open problem in Control Theory of Decoupling (or Non Interaction).

This problems aims at compensating a given multi-input, multi output system so that each scalar system output can be independently controlled by a corresponding well chosen scalar input. The existence of a solution is shown to depend on the existence of three lists of nonnegative integers conditioned by and only by system invariants with respect to the transformations permitted while decoupling.

The seminar is divided in two parts. Part I includes an historical perspective, the problem formulation, and mathematical preliminaries. Part II includes a solvability condition, a synthesis of decoupling feedback, and illustrative examples. Part I is a prerequisite for Part II.

For a short Resume of Vladimir Kučera and an Abstract of his talks, see here attached (Decoupling_Seminar.pdf)