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## EDF'Lab, January 30,2017 (Azur, Amphi 1)

« Centralisation, decentralisation and competition in network congestion games »

« In a network congestion game, players decide how to send their stock along one or several available routes in a certain network, while the transportation cost depends on the congestion on each road. The scenario is similar to the planning of electric consumption/production along one or several time slots. Small (negligible) players can form a centralised coalition and delegate their decision-making to a central authority, whereas a large (non negligible) player can decentralise the decision-making by delegating her stock to several autonomous delegates. I first study the comparative statics of equilibrium in such congestion games called "composite" because of the different sizes of the players. Then I explore the strategic incentive for the choice of centralisation or decentralisation. Finally I investigate the dynamic process of co-adjustment by both centralised and decentralised players with respect to their transportation scheme.»