Marco CIRANT: Oscillating solutions in non-monotone Mean-Field Games

For non-monotone time-dependent Mean-Field Game systems, we will discuss the existence of solutions that exhibit an oscillatory behaviour in time. We will show how local and global bifurcation methods lead to the existence of such solutions, with a focus on the analysis of the space-time Fourier coefficients of the linearized problem. We will show some numerical experiments and discuss further possible generalisations in the direction of truly time-periodic solutions.