第189回エンレイソウの会

場　所：北海道大学理学部2号館2階2-2-11（大学院講義室）

日　時：2013年6月17日（月曜日）16：30-17:30

講演者：**Dr. Julio Rodriguez** (EPFL, Switzerland)

題　目：**『Adapting Coupled Periodic Stable Signals』**

要　旨：We consider a network of stable periodic systems, each having their own set of parameters characterizing the time scale of the signal and its shape. Due to additional coupling functions, each local set of parameters are allowed to adapt (i.e. modify their values). The adaptive mechanisms, with the help of the usual state variable interactions, drive all local system towards a consensual oscillatory state where they all have a common, constant set of parameters. Once reached, the consensual oscillatory state remains even if mutual interactions are removed. This situation is to be contrasted with classical synchronization problems where common dynamical patterns are attained and maintained thanks to the interactions. Also, in synchronization, local system converge back towards their individual behavior in the absence of interactions. The resulting value of the common set of parameters is analytically calculated. It does not depend on the network's topology. However, the conditions for convergence do dependent on the connectivity of the network.

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