

國立東華大學應用數學系
專題演講

一、主講人：林英芬教授

Department of Applied Mathematics, National Dong Hwa University

講題：The C^* -algebra of $ax+b$ -like groups

時間：100年12月2日(星期五) 14:30-16:00

地點：理學院A324會議室

摘要

In this talk, I will briefly introduce the C^* -algebra of a locally compact group and describe the C^* -algebra of “ $ax+b$ ”-like groups as a C^* -algebra of operator fields defined over the dual space of the group

二、主講人：吳建銘教授

Department of Applied Mathematics, National Dong Hwa University

講題：Annealed Kullback - Leibler divergence minimization for generalized TSP, spot identification and gene sorting

時間：100年12月2日(星期五) 14:30-16:00

地點：理學院A324會議室

摘要

This work explores learning LCGM (lattice-connected Gaussian mixture) models by annealed Kullback - Leibler (KL) divergence minimization for a hybrid of topological and statistical pattern analysis. The KL divergence measures the general criteria of learning an LCGM model that is composed of a lattice of multivariate Gaussian units. A planar lattice emulates topological order of cortex-like neighboring relations and built-in parameters of connected Gaussian units represent statistical features of unsupervised data. Learning an LCGM model involves collateral optimization tasks of resolving mixture combinatorics and extracting geometric features from high-dimensional patterns. Under assumption that mixture combinatorics encoded by Potts variables obey the Boltzmann distribution, approximating their joint probability by the product of individual probabilities is qualified by the KL divergence whose minimization under physical-like deterministic annealing faithfully optimizes involved mixture combinatorics and geometric features. Numerical simulations show the proposed annealed KL divergence minimization is effective and reliable for solving generalized TSP, spot identification, self-organization and visualization and sorting of yeast gene expressions.

三、主講人：黃延安教授

Department of Applied Mathematics, National Dong Hwa University

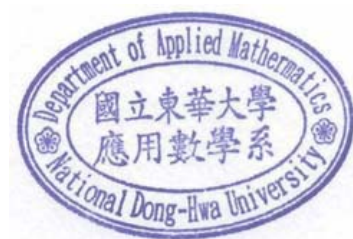
講 題：On the core: complement-reduced game and max-reduced game

時 間：100 年 12 月 2 日(星期五) 14:30-16:00

地 點：理學院A324會議室

摘 要

On the domain of all games, this paper presents two characterizations of the core. One is based on consistency with respect to "complement-reduced game" and converse consistency with respect to "max-reduced game". The other is based on consistency with respect to "max-reduced game" and weak converse consistency with respect to "complement-reduced game". Besides, we introduce an alternative definition of individual rationality, we name conditionally individual rationality, which is compatible with non-emptiness. We discuss axiomatic characterizations involving conditionally individual rationality for the core.



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