

NTU Applied Mathematics Colloquium

演講者 : Professor Jingfang Huang (Department of Mathematics, The University of North Carolina at Chapel Hill)

講題 : On the Hierarchical Modeling Technique with Applications

時間 : 2018年4月9日 (星期一) 14:00-15:00

地點 : 臺灣大學天數館 202 室

摘要 : In this talk, I will discuss the fundamentals of the hierarchical modeling technique and some applications in physical sciences and big data analysis, including a fast hierarchical algorithm for evaluating the probabilities and expectations of the p -dimensional truncated multivariate normal distributions. By utilizing the low-rank and low-dimensional structures in the inverse of the covariance matrix, and by processing the compressed information efficiently on a hierarchical tree, the computational complexity of evaluating a p -dimensional integral can be reduced to the asymptotically optimal $O(p)$.

茶會 : 15:00-15:30

