学术报告通知

报告人：Dr. Yongchang Hu (Delft University of technology)

题　目：The nonlinearity and the non convexity issue in localization

时　间：11 月 15 日上午 11:00 到 12:00

地　点：电院 2-406

Bio：

Yongchang Hu was born in Xi’ an, China, in 1988. He received the B.Sc. and M.Sc. degrees from Northwestern Polytechnical University, Xi’ an, in 2010 and 2013, respectively. He is currently working toward the Ph.D. degree with the Circuits and Systems (CAS) Group, Department of Microelectronics, Delft University of Technology, Delft, The Netherlands. His research interests lie in signal processing for communications (including MIMO, OFDM, signal modulation and etc..), modelling radio propagation channels, random network analysis, and source localization.

Abstract：

Non-linearity and non-convexity have widely existed in a variety of fields, though presented in different fashions. This talk will particularly elaborate on these two issues for localization problems, where we readily observe that the non-convexity manifests itself differently over linearization. Thus, two common ways that cope with the non-linearity and the corresponding methods that tackle the non-convexity will be investigated in details, respectively. Their performance are also studied and compared. For a better interpretation, the discussions will be presented in a more general flavor such that the audience can easily understand and relate them to other optimization problems with similar issues.

Key words: Linearization, convex optimization, semi-definite programming (SDP), trust region, quadratically constrained quadratic program (QCQP), Karush-Kuhn-Tucker (KKT) conditions, computational complexity