数学与系统科学研究院

计算数学所定期学术报告

报告人：Associate Prof. Xiaoming Deng

（ Institute of Software, CAS ）

报告题目：

Face Sketch Image Synthesis by Using Sparse Representation

邀请人： 戴彧虹 研究员

报告时间：2016 年 3 月 31 日（周四）

下午 16:00~17:00

报告地点： 科技综合楼三层

311 报告厅

Abstract：

Face sketch images are often considered to be more discriminative for face recognition than photos in law enforcement. The sketch image can also be the only information available on a suspect if it is obtained from the description of witness. In this context, both to improve discrimination and to provide similar information to face recognition systems, it appears of importance to derive a sketch from a photo. This process is called "face photo-sketch synthesis". In this talk, we present face sketch image synthesis by using sparse representation. In the first part, we introduce a baseline method by assuming that the face photo patch and its corresponding sketch patch follow the same sparse representation, and the sketch can be synthesized by solving l1-norm optimizations. In the second part, we improve the baseline method by enforcing the local smoothness priors of face sketch images. The cost function in this method is convex, and can be also solved with l1-norm optimizations.

Short bio：

Xiaoming Deng is an associate professor at Institute of Software, Chinese Academy of Sciences. His main research topics are in computer vision, and specifically related to camera calibration, 3D reconstruction, object recognition, image synthesis, human motion tracking and synthesis. (Refer to www.idengxm.com for more information).

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