

Lecture 10 Report Requirement

The report only needs to answer the questions below.

Send your report in PDF format to 1430090453@qq.com, named as "report10_[first name][last name].pdf" (e.g., report10_ZhangChen.pdf). **Please also include your name (both English and Chinese) at the beginning of the report.** The report is due on 10 am, China Standard Time, **April 25, 2020.**

Report Questions:

"Coded Two-Bucket Cameras for Computer Vision"

1. What type of camera is C2B camera? What images does it output per video frame? What components does each pixel in its sensor contain?
2. What are the advantages of C2B sensors in practice?
3. What can we conclude about illumination albedos of C2B cameras?
4. (1) Give a description about two-bucket illumination mosaic based on its property --- "alternative".
(2) Use a word to describe the improvement on the illumination mosaic, comparing to the filter mosaic.
(3) How can the authors acquire a two-bucket illumination mosaic? (If there exist abbreviations in your answer, explain them.) Briefly explain the recovering process of high-resolution.
5. What is the shape of optimal matrix C^p ? Why do we think this shape of C^p is optimal?

"MC3D: Motion Contrast 3D Scanning"

6. What are the limitations of the previous methods of SL? Briefly list.
7. What's the full name of LCR? What's the relationship between LCR and SNR?
8. What should a maximally efficient SL system satisfy? What do the constraints mean?
9. What is Motion Contrast Camera?
10. What is the difference between conventional and motion contrast camera output?