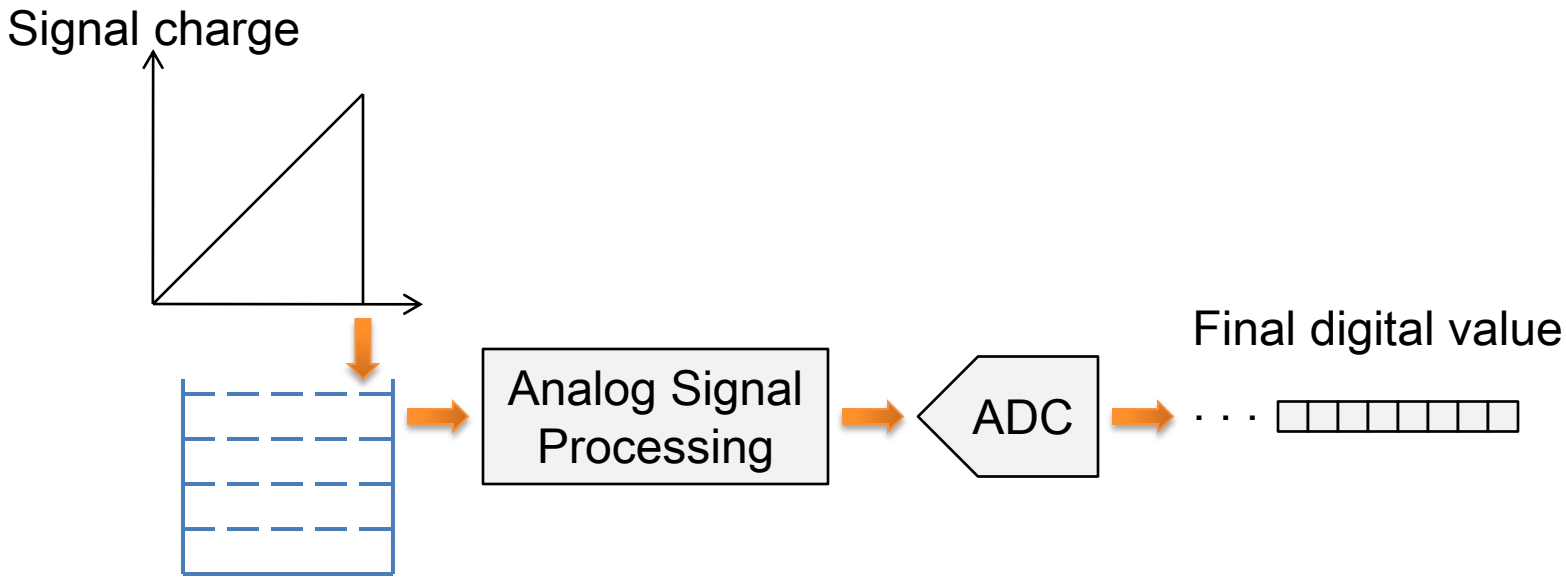
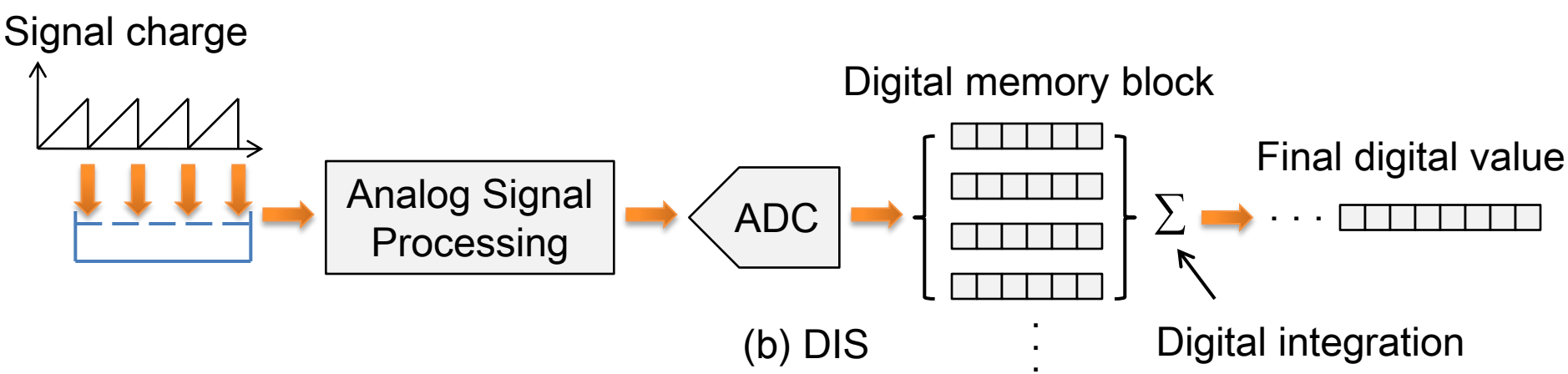
Digital Integration Sensor (DIS)

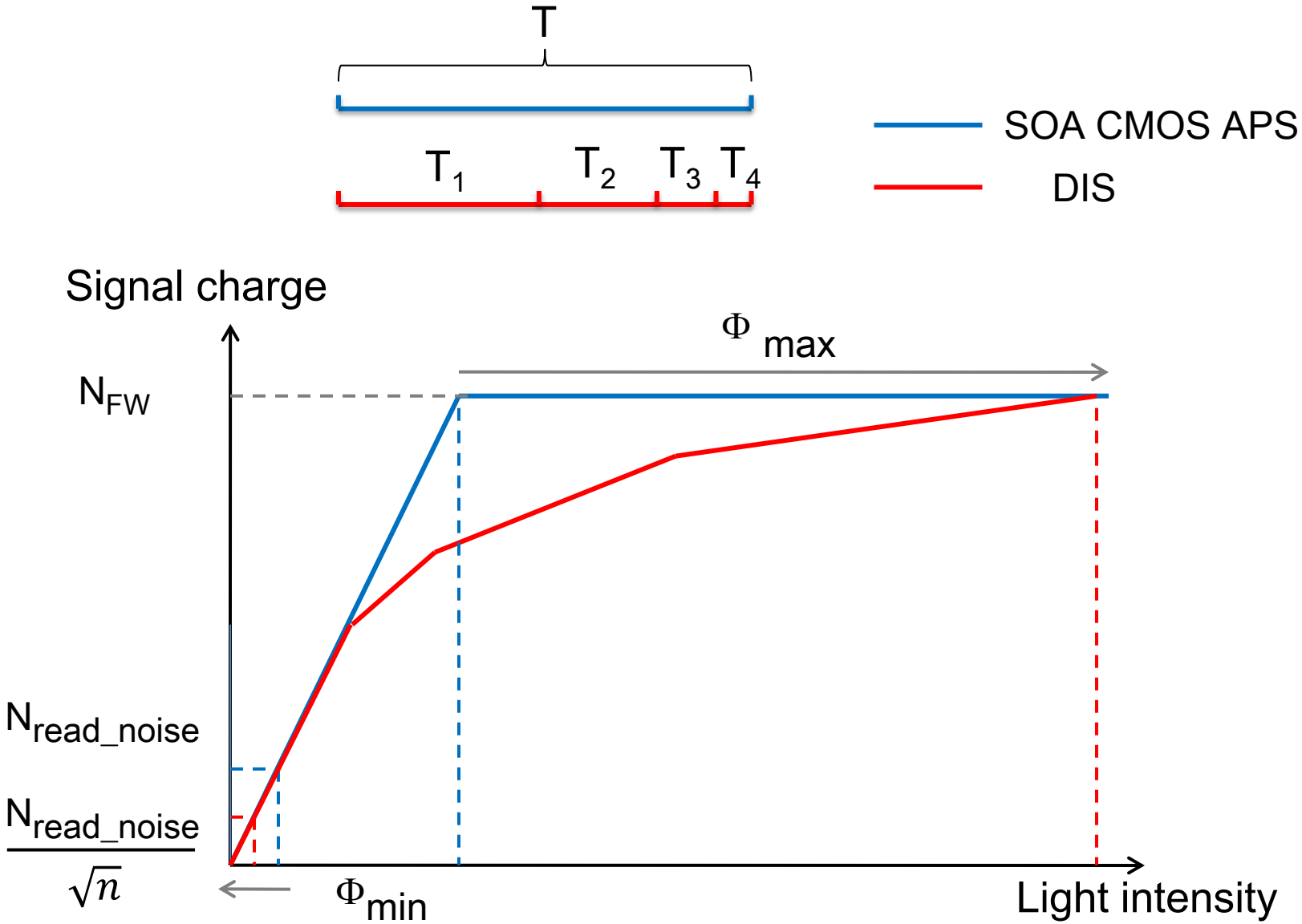


(a) SOA CMOS APS

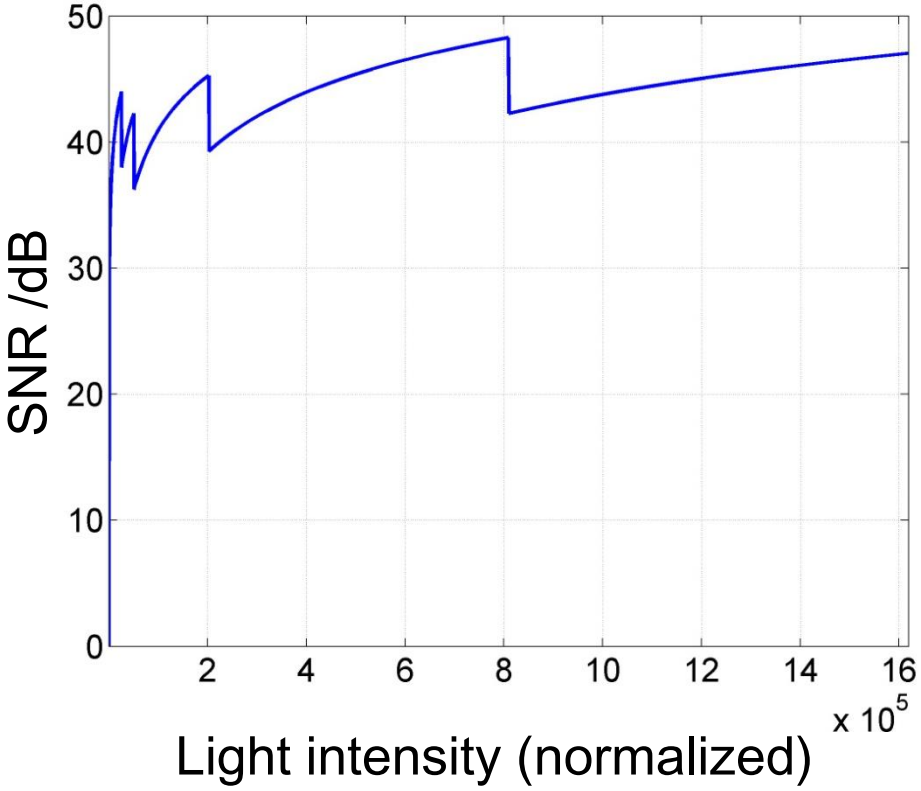


(b) DIS

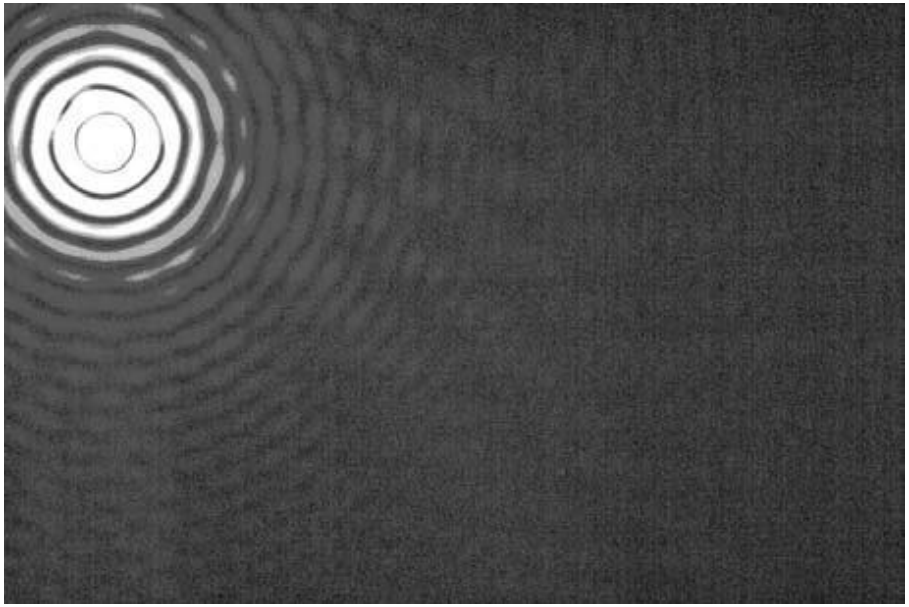
DIS as HDR Image Sensor



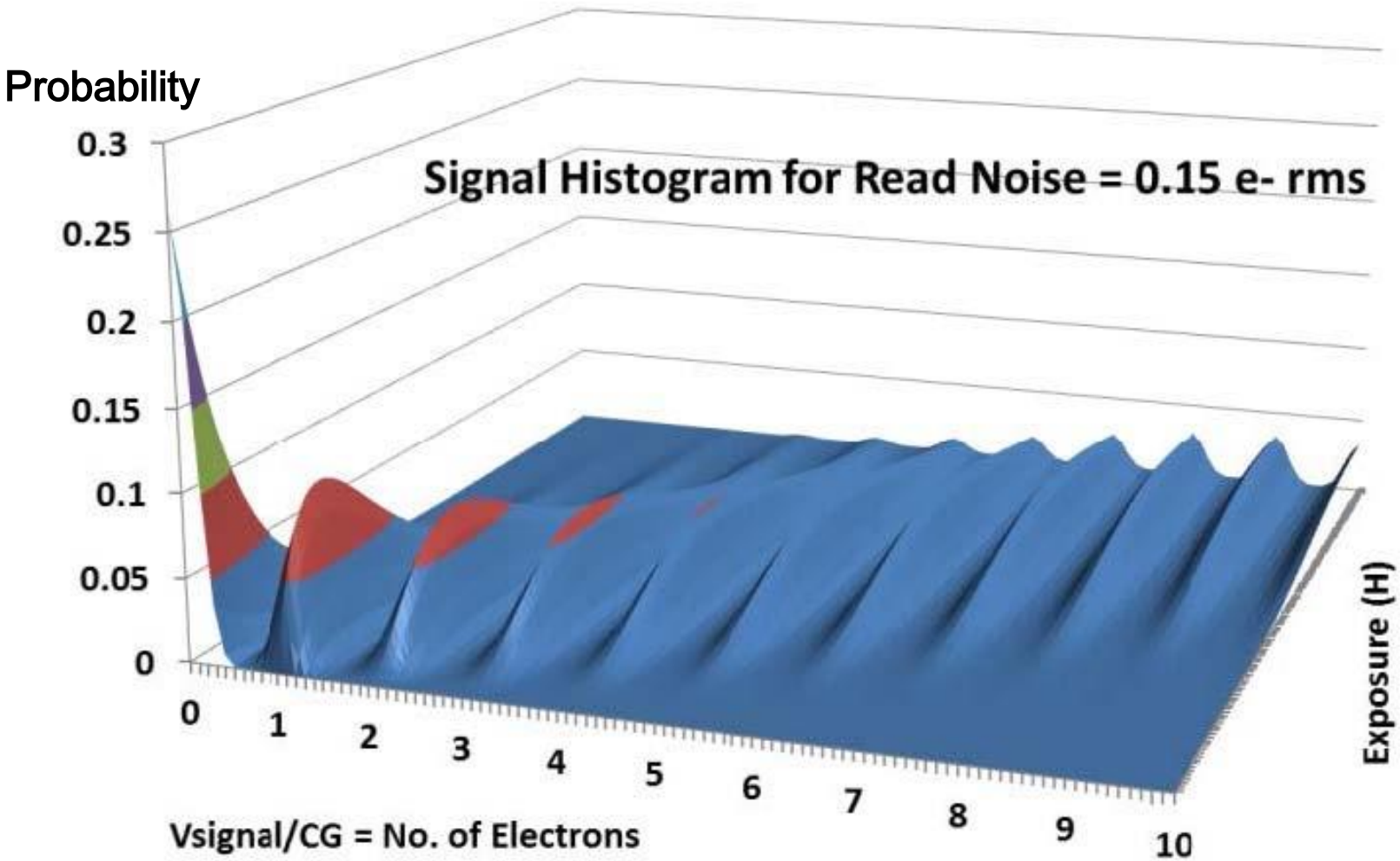
DIS as HDR Image Sensor



SNR vs. light intensity
for 16 varying integration-time case



- Canon EOS 60D DSLR
- Using just 8 bits of digital output per frame
- Sum 16 frames
- Achieve over 88 dB DR

THAYER SCHOOL OF ENGINEERING AT DARTMOUTH

"Quantized" DIS (qDIS)