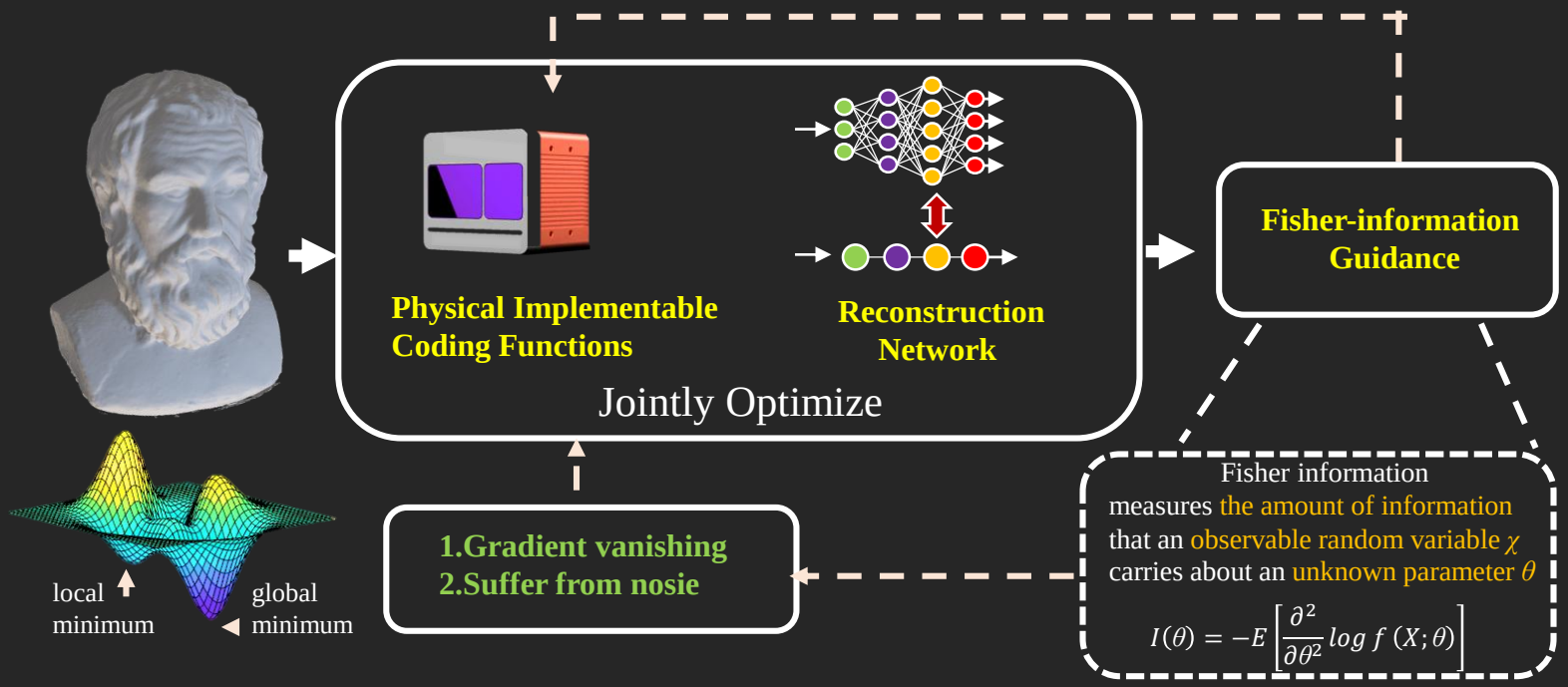
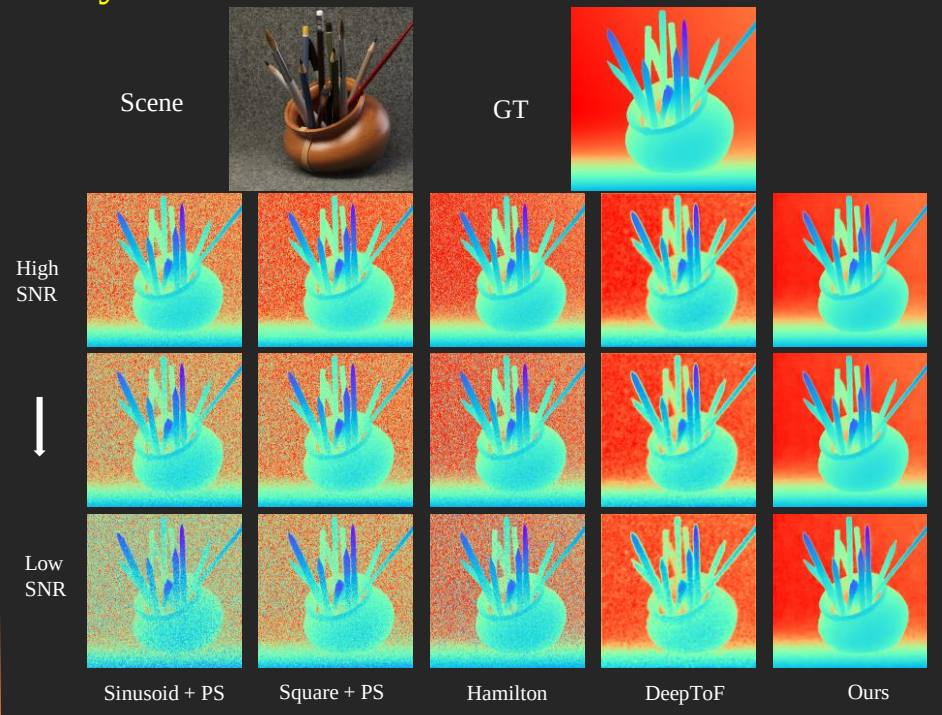
Fisher Information Guidance for Learned Time-of-Flight Imaging

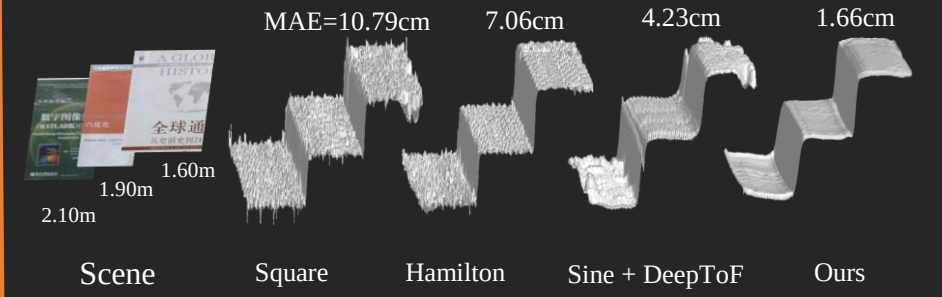
The Overall Framework



Synthetic Result



Summary

- We propose a noise-robust, high-accuracy, learnable iToF imaging for low SNR scenarios;
- We introduce an information theory guided framework to jointly optimize the coding functions and the depth reconstruction neural network of iToF imaging ;
- Through simulation and experimental comparisons with the state-of-the-art methods, we demonstrate the superiority of the proposed iToF imaging;

Physical Result