User Guide

Chia-Hsiang Lin[†], and Tzu-Hsuan Lin

February 10, 2022

Description

Based on our research paper "All-addition hyperspectral compressed sensing for metasurface-driven miniaturized satellite (AAHCSD)", we prepare a demo file for researchers to investigate our theory and algorithm. In the demo, the benchmark is provided by the well-known hyperspectral compressed sensing algorithm, known as "spectral compressive acquisition (SpeCA)", whose source code is obtained from the link: http://www.lx.it.pt/~bioucas/publications.html

Demo

Users just need to run the Matlab program "demo.m" to see the quantitative and qualitative performances of AAHCSD.

Cite Our Work

If you find our theory/algorithm valuable, please kindly cite our work:

```
• @ARTICLE{lin2021all, author={Lin, Chia-Hsiang and Lin, Tzu-Hsuan}, journal={IEEE Transactions on Geoscience and Remote Sensing}, title={All-Addition Hyperspectral Compressed Sensing for Metasurface-Driven Miniaturized Satellite}, year={2022}, volume={60}, pages={1-15}, doi={10.1109/TGRS.2021.3062725}}
```

[†] Department of Electrical Engineering, National Cheng Kung University, Tainan, Taiwan (R.O.C.) E-mail: chiahsiang.steven.lin@gmail.com; Web: https://sites.google.com/view/chiahsianglin/