

# Lab Notebook

## Pupil Reconstruction

Daniel Carmona

## Contents

<b>1</b>	<b>Amplitude and Phase Reconstruction</b>	<b>2</b>
<b>2</b>	<b>PSF Reconstruction</b>	<b>2</b>

# 1 Amplitude and Phase Reconstruction

16 February 2024

- Create new github branch: `AmpPhaseReconstructionRetraining`
- Download the following the files from Morgana:
  - `superK_slmcube_20230625_complsines-01sp_07`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file00`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file01`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file02`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file03`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file04`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file05`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file06`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file07`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file08`
  - `slmcube_20230625_complsines-01sp_07_PSFWFs_file09`
- Data processing for Fully Convolutional NN training
- One fast experiment for each file: very good results, around 0.05 validation mse

---

## 2 PSF Reconstruction