# Lab Notebook

## Pupil Reconstruction

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# Contents

# 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

## 19 February 2024

- Remove normalization from amplitude and phase for the fully connected experiments

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## EXPERIMENT A

Hyperparameters:

`C`

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# 2   PSF Reconstruction