

## Preparation

### - 1. Build the SED library

List of SED *filename* including path  
GALAXY SEDs in \$LEPHAREDIR/SED/GAL/*filename*  
QSO     ...                    /QSO/     ...  
STAR    ...                    /STAR/    ...

Command line executables  
→  
*sedtolib*

SED library (binary format and doc)  
Products stored in \$LEPHAREWORK/lib\_bin

### - 2. Build the filter library

List of *filename* from FILTER\_LIST including path  
\$LEPHAREDIR/filt/*filename*

→  
*filter*

Filter file (ascii format and doc)  
Products stored in \$LEPHAREWORK/filt

### - 3. Build the flux/magnitude library

Build from SED and filters libraries (step 1 & 2)  
+ redshift grid, cosmology, dust, ...

→  
*mag\_gal*

Flux/magnitude library (binary format and doc)  
Products stored in \$LEPHAREWORK/lib\_mag

## Photometric redshifts

Start with the flux/magnitude libraries (step 3)  
+ input catalogue  
+ list of output parameters

→  
*zphota*

Output catalogues  
Products stored in the working directory

## LEPHARE++ executables

- Stored in your *bin* directory if *pip install lephare*
- Stored in *LEPHARE/bin* if installed in developer mode (cloning [github.com/lephare-photoz/lephare](https://github.com/lephare-photoz/lephare))

**\$LEPHAREDIR** set to the default cache directory *cache/lephare/data* (if *LEPHAREDIR* not defined)

### Directory storing internal data used by the code.

Two ways of getting them:

- Full clone of the LEPHARE-data repository ([github.com/lephare-photoz/lephare-data](https://github.com/lephare-photoz/lephare-data))
- Use the *data\_retrieval* function available in the python interface

sed/ : galaxy/AGN/star templates from numerous sources (classified in subdirectories)

filt/ : filters from numerous telescopes/instruments (classified in subdirectories)

ext/ : dust attenuation curves

opa/ : tables with the IGM opacity at various redshifts

**\$LEPHAREWORK** set to the default cache directory *cache/lephare/work* (if *LEPHAREWORK* not defined)

### Directory storing intermediate libraries produced by the code

lib\_bin/ : selected SED merged in one library (binary format and doc)

filt/ : selected filters merged in one library (ascii format and doc)

lib\_mag/ : libraries with predicted magnitudes (binary format and doc)