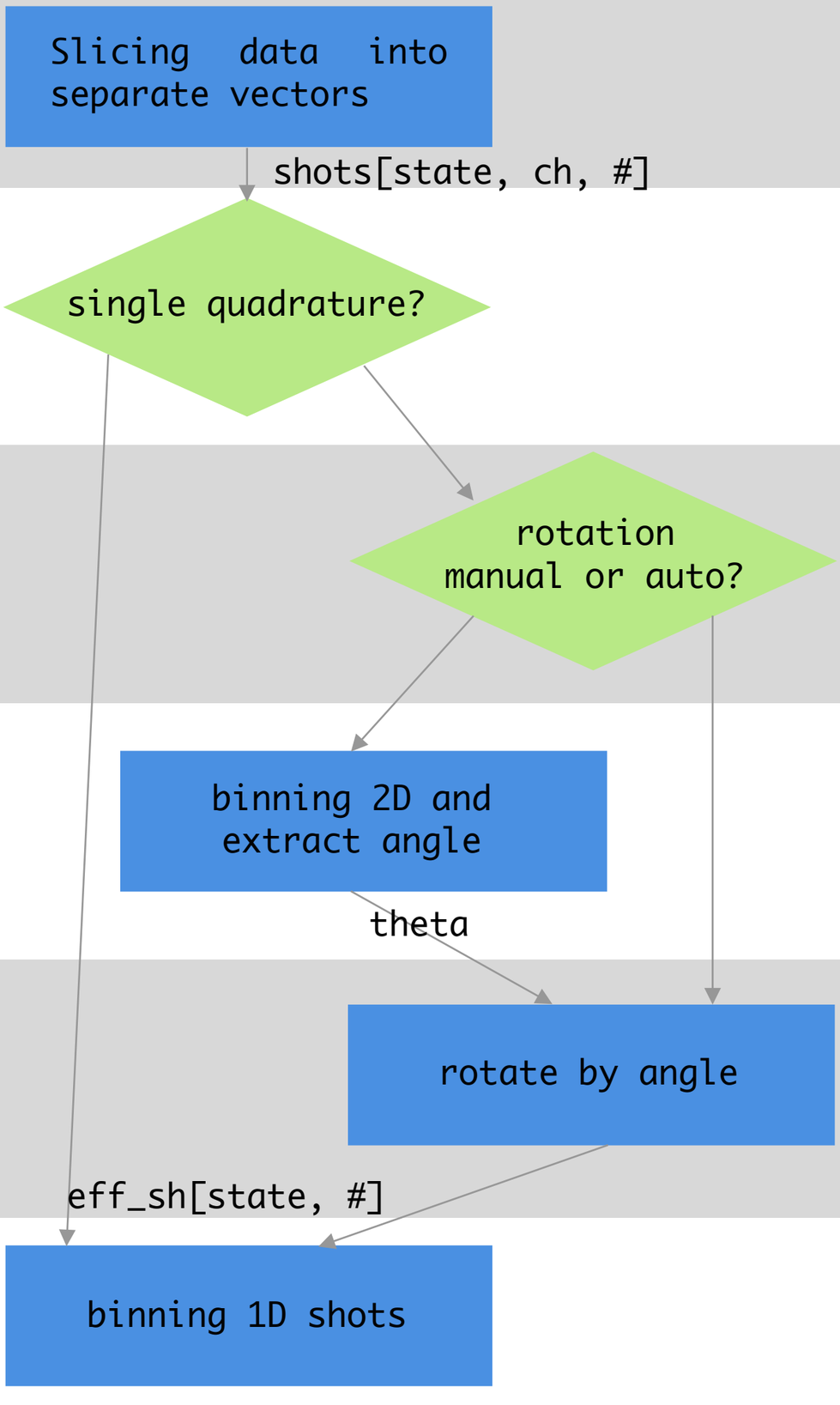
SSRO: Data processing procedure

FLOW-CHART



OPTIONS DICTIONARY

```
(unpacking parameters)
 post_select: bool
 post_select_threshold: float
 nr_samples: int
 nr_bins: int

(rotation parameters)
 auto_rotation_angle: bool
 rotation_angle: float
```

PROCESSED DATA DICTIONARY

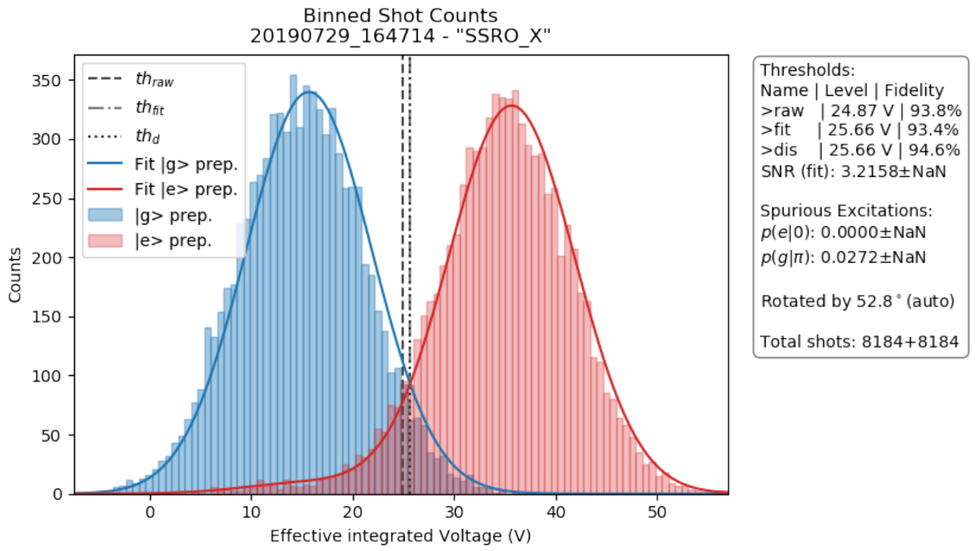
```
(center of bins)
I Q_pos: float

(no fits quantities)
F_assignment_raw: float
threshold_raw: float
```

SSRO: Data fitting procedure

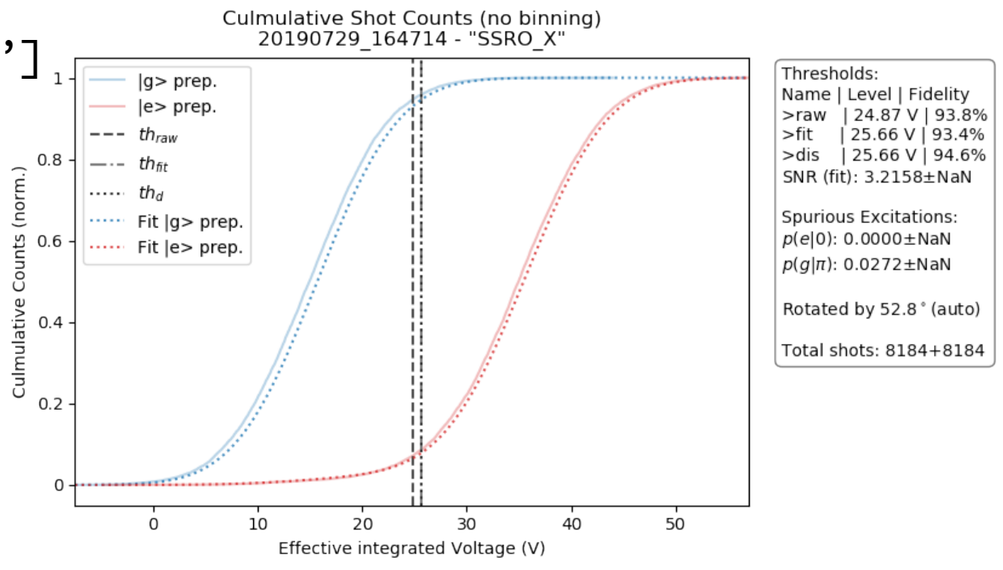
FLOW-CHART	OPTIONS DICTIONARY	PROCESSED DATA DICTIONARY
Fit preparation procedure		
Fit histogram PDF (gaussian)	fixed_p01: float fixed_p10: float	shots_all_hist shots_all
Prepare (not do) fit histogram CDF (errf)		
Fit analysis procedure		
Calculate eaningful quantities		F_assignment_fit: float threshold_fit: float F_discr: float threshold_discr: float residual_excitation: float measurement_induced_relaxation: float

SSRO: Data ploting procedure

```
DATA VARIABLES:
 SHOTS VOLTAGES = proc_data_dict[‘eff_int_voltages’][state, #]
 SHOTS PDF HIST = proc_data_dict['hist’][state]
 SHOTS CDF = proc_data_dict['cumsum_y’][state]
 2D X BINS = proc_data_dict['2D_histogram_x’]
 2D Y BINS = proc_data_dict['2D_histogram_y’]
 2D HIST. = proc_data_dict['2D_histogram_z’][state]
```




```
FITTING PARAMETERS:
 FIT_CDF = fit_res['shots_all'].best_values
 RES. EXC. = fit_res['shots_all’].params[‘A_spurious’]
 MMT. IND. RELAXATION = fit_res['shots_all’].params[‘B_spurious’]
 FIT_PDF = fit_res['shots_all_hist'].best_values
```




```
THRESHOLDS:
 THRESH. FROM BINS = proc_data_dict['threshold_raw']
 THRESH. FROM FITS = proc_data_dict['threshold_fit']
 THRESH. DISCR. = proc_data_dict['threshold_discr']
```