SSRO: Data processing procedure

FLOW-CHART	OPTIONS DICTIONARY	PROCESSED DATA DICTIONARY
Slicing data into separate vectors shots[state, ch, #] single quadrature?	<pre> (unpacking parameters) post_select: bool post_select_threshold: float nr_samples: int nr_bins: int</pre>	
rotation manual or auto?	<pre>(rotation parameters) auto_rotation_angle: bool rotation_angle: float</pre>	
binning 2D and extract angle theta		(center of bins) I Q_pos: float
rotate by angle eff_sh[state, #]		
binning 1D shots		<pre>(no fits quantities) F_assignment_raw: float threshold_raw: float</pre>

SSRO: Data fitting procedure

	331to: Baca i Lecting 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, #]

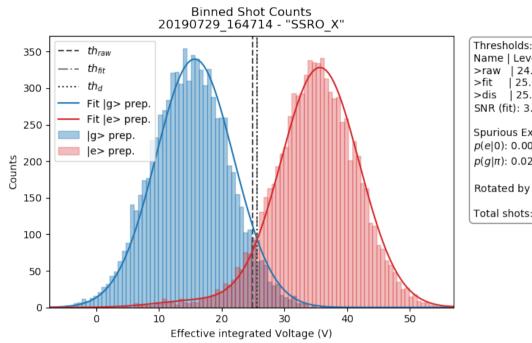
SHOTS PDF HIST = proc_data_dict['hist'][state]

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]



Name | Level | Fidelity | 24.87 V | 93.8% >raw 25.66 V | 93.4% . 1 25.66 V l 94.6% SNR (fit): 3.2158±NaN

Spurious Excitations: $p(e|0): 0.0000 \pm NaN$ $p(g|\pi)$: 0.0272±NaN

Rotated by 52.8° (auto)

Total shots: 8184+8184

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

Culmulative Shot Counts (no binning) 20190729 164714 - "SSRO X"

Effective integrated Voltage (V)

|e> prep.

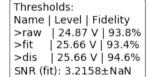
····· Fit |g> prep.

····· Fit |e> prep.

--- th_{raw}

Counts 6.0

Culmulative (



Spurious Excitations: p(e|0): 0.0000±NaN $p(g|\pi)$: 0.0272±NaN

Rotated by 52.8° (auto)

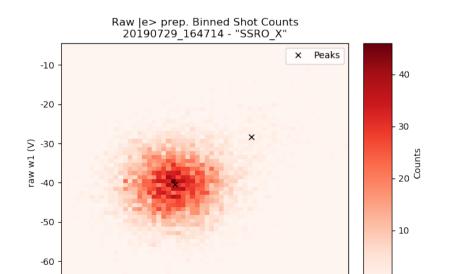
Total shots: 8184+8184

THRESHOLDS:

THRESH. FROM BINS = proc_data_dict['threshold_raw']

THRESH. FROM FITS = proc_data_dict['threshold_fit']

THRESH. DISCR. = proc_data_dict['threshold_discr']



raw w0 (V)

