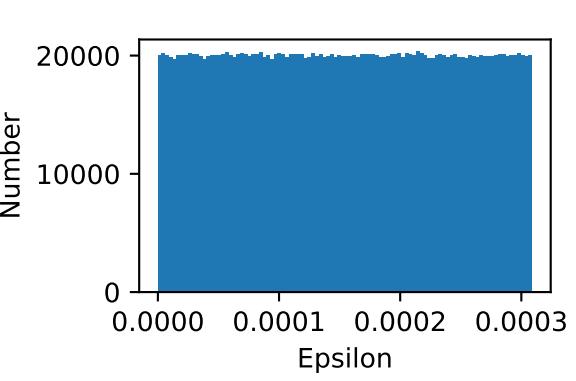
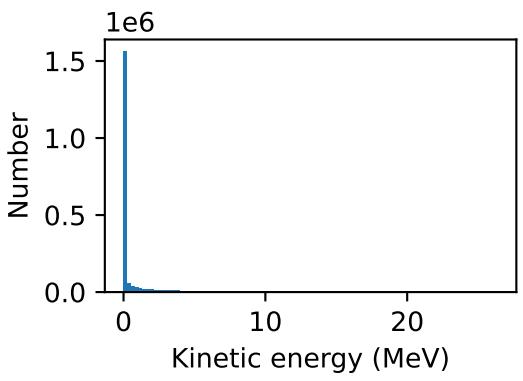
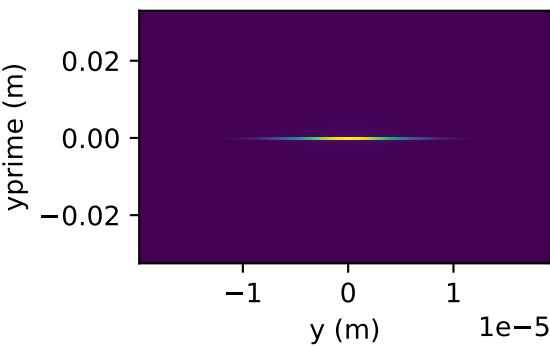
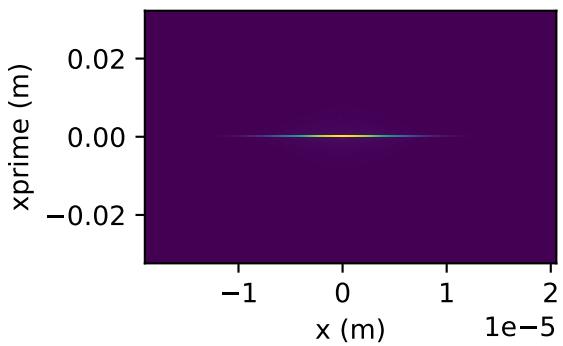
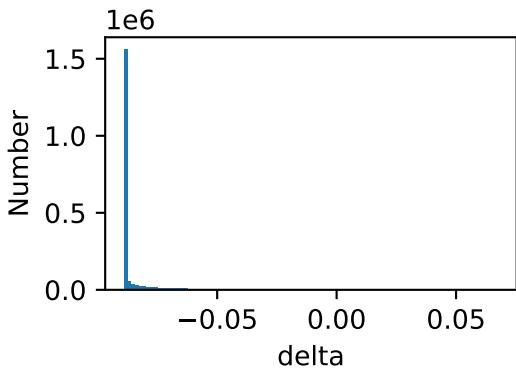
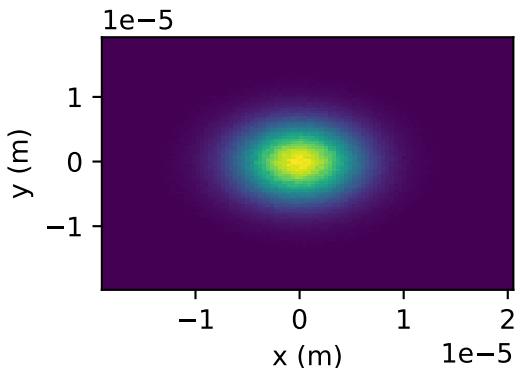
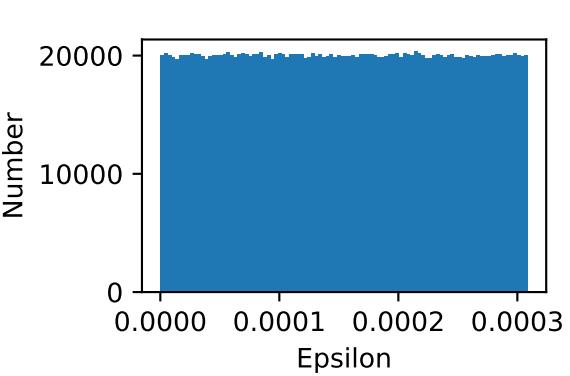
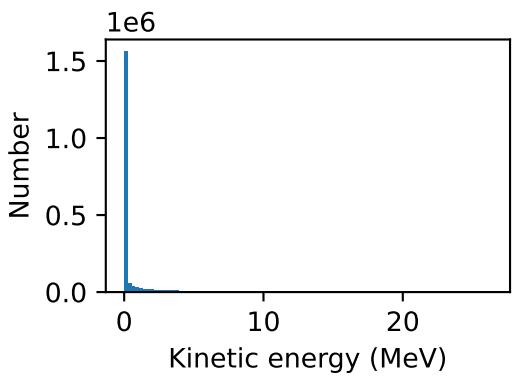
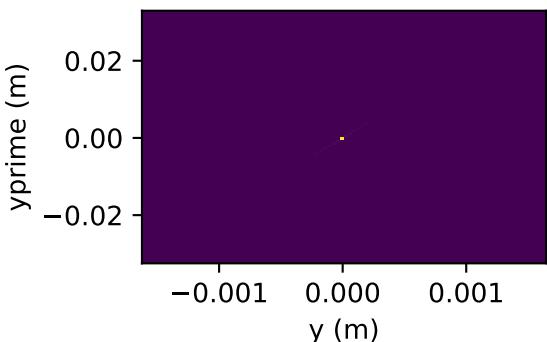
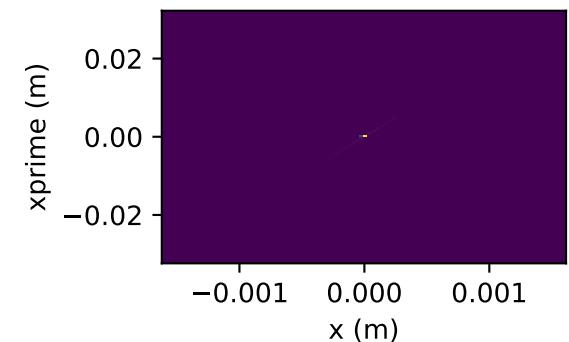
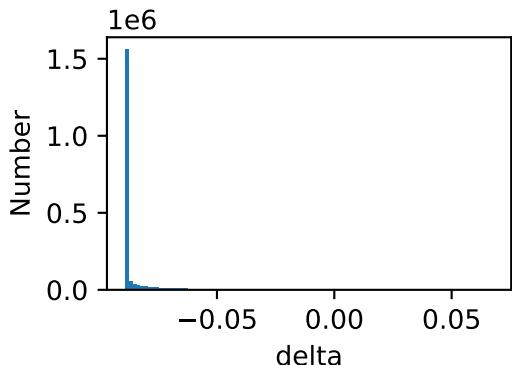
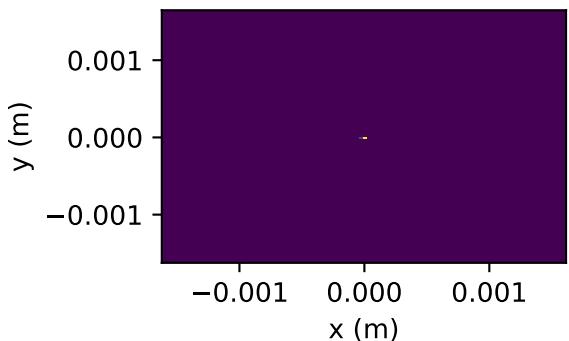


Stage	Section	Element	Type	Parameter	Value	Unit	Comment
0	Facility	Global	Name	Name	LhARA		
0	Facility	Global	Reference particle	Kinetic energy	15	MeV	
0	Facility	Global	Vacuum chamber	Mother volume radius	0.5	m	
1	Source	Source	Parameterised TNSA	SourceMode	0		Gaussian kinetic energy
1	Source	Source	Parameterised TNSA	SigmaX	0.000004	m	Gaussian width, x
1	Source	Source	Parameterised TNSA	SigmaY	0.000004	m	Gaussian width, y
1	Source	Source	Parameterised TNSA	Emin	1	MeV	Minimum of energy distribution
1	Source	Source	Parameterised TNSA	Emax	25	MeV	Maximum of energy distribution
1	Source	Source	Parameterised TNSA	nPnts	1000		Number of points to sample for integration of PDF
1	Source	Source	Parameterised TNSA	MinCTheta	0.999691		Maximum theta for flat cos theta
1	Source	Source	Parameterised TNSA	Power	2.5E+15	W	Laser power
1	Source	Source	Parameterised TNSA	Energy	70	J	Laser energy
1	Source	Source	Parameterised TNSA	Wavelength	0.8	um	Laser wavelength
1	Source	Source	Parameterised TNSA	Duration	2.80E-14	s	Laser pulse duration
1	Source	Source	Parameterised TNSA	Thickness	4E-07	m	Target thickness
1	Source	Source	Parameterised TNSA	Intensity	4.00E+20	W/cm2	Laser intensity
1	Source	Source	Parameterised TNSA	DivAngle	25	degrees	Electron divergence angle
1	Interface	Drift		Length	0.05	m	Length of first, compensated, drift
1	Interface	Aperture	Circular	Radius	0.002	m	Inner bore of entry to nozzle
1	Interface	Drift		Length	0.05	m	Length of first, compensated, drift
1	Interface	Aperture	Circular	Radius	0.00287	m	Inner bore of exit from nozzle
1	Capture	Drift		Length	0.15	m	Drift to Gabor lens
1	Capture	Gabor len	Length, strength	Length	0.857	m	Length of Gabor lens
1	Capture	Gabor len	Length, strength	Strength	2.491695	rad/m	ks
1	Capture	Drift		Length	0.15	m	Drift out of Gabor lens
1	Capture	Drift		Length	0.15	m	Drift to next Gabor lens
1	Capture	Gabor len	Length, strength	Length	0.857	m	Length of Gabor lens
1	Capture	Gabor len	Length, strength	Strength	1.018747	rad/m	ks
1	Capture	Drift		Length	0.15	m	Drift out of Gabor lens
1	Energy selection	Drift		Length	0.183783	m	Drift before first cavity
1	Energy selection	Cavity	Cylindrical	Gradient	5	MV/m	Gradient
1	Energy selection	Cavity	Cylindrical	Frequency	200	MHz	Frequency
1	Energy selection	Cavity	Cylindrical	Phase	0	degrees	Phase of reference particle
1	Energy selection	Drift		Length	0.183783	m	Drift after first cavity
1	Energy selection	Drift		Length	0.15	m	Drift to next Gabor lens
1	Energy selection	Gabor len	Length, strength	Length	0.857	m	
1	Energy selection	Gabor len	Length, strength	Strength	1.448565	rad/m	
1	Energy selection	Drift		Length	0.15	m	Drift out of Gabor lens
1	Energy selection	Drift		Length	1.771	m	Drift to energy-selection collimator
1	Energy selection	Drift		Length	0.005	m	Space for energy-selection collimator
1	Energy selection	Aperture	Circular	Radius	0.0025	m	Collimator
1	Energy selection	Drift		Length	0.005	m	Space for energy-selection collimator
1	Energy selection	Drift		Length	0.06461	m	
1	Energy selection	Drift		Length	0.13539	m	
1	Energy selection	Drift		Length	0.01	m	Space for energy-selection collimator?
1	Energy selection	Drift		Length	0.0546	m	
1	Energy selection	Drift		Length	0.183783	m	Drift before second cavity
1	Energy selection	Cavity	Cylindrical	Gradient	5	MV/m	Gradient
1	Energy selection	Cavity	Cylindrical	Frequency	200	MHz	Frequency
1	Energy selection	Cavity	Cylindrical	Phase	0	degrees	Phase of reference particle
1	Energy selection	Drift		Length	0.183783	m	Drift after second cavity
1	Matching	Drift		Length	0.15	m	Drift to next Gabor lens
1	Matching	Gabor len	Length, strength	Length	0.857	m	
1	Matching	Gabor len	Length, strength	Strength	1.788859	rad/m	
1	Matching	Drift		Length	0.15	m	Drift out of Gabor lens
1	Matching	Drift		Length	0.3	m	
1	Matching	Drift		Length	0.15	m	Drift to next Gabor lens
1	Matching	Gabor len	Length, strength	Length	0.857	m	
1	Matching	Gabor len	Length, strength	Strength	1.60434	rad/m	
1	Matching	Drift		Length	0.15	m	Drift out of Gabor lens
1	Matching	Drift		Length	2.5	m	
1	Matching	Drift		Length	0.15	m	Drift to next Gabor lens
1	Matching	Gabor len	Length, strength	Length	0.857	m	
1	Matching	Gabor len	Length, strength	Strength	1.244814	rad/m	
1	Matching	Drift		Length	0.15	m	Drift out of Gabor lens
1	Matching	Drift		Length	0.3	m	
1	Matching	Drift		Length	0.15	m	Drift to next Gabor lens
1	Matching	Gabor len	Length, strength	Length	0.857	m	
1	Matching	Gabor len	Length, strength	Strength	1.165967	rad/m	
1	Matching	Drift		Length	0.15	m	Drift out of Gabor lens
1	Arc	Drift		Length	0.2	m	
1	Arc	Dipole	Sector (Length, angle)	Length	0.8	m	
1	Arc	Dipole	Sector (Length, angle)	Angle	45	degrees	
1	Arc	Drift		Length	0.2	m	
1	Arc	Dquad		Length	0.1	m	
1	Arc	Dquad		kq	22.544	m^-2	
1	Arc	Drift		Length	0.4	m	
1	Arc	Fquad		Length	0.1	m	
1	Arc	Fquad		kq	31.3768	m^-2	
1	Arc	Drift		Length	0.2	m	
1	Arc	Dquad		Length	0.1	m	
1	Arc	Dquad		kq	31.5123	m^-2	
1	Arc	Drift		Length	0.195	m	
1	Arc	Drift		Length	0.01	m	
1	Arc	Drift		Length	0.195	m	
1	Arc	Dquad		Length	0.1	m	
1	Arc	Dquad		kq	31.5123	m^-2	
1	Arc	Drift		Length	0.2	m	
1	Arc	Fquad		Length	0.1	m	
1	Arc	Fquad		kq	31.3768	m^-2	
1	Arc	Drift		Length	0.4	m	
1	Arc	Dquad		Length	0.1	m	
1	Arc	Dquad		kq	22.544	m^-2	
1	Arc	Drift		Length	0.2	m	
1	Arc	Dipole	Sector (Length, angle)	Length	0.8	m	
1	Arc	Dipole	Sector (Length, angle)	Angle	45	degrees	
1	Arc	Drift		Length	0.2	m	
1	Arc	Drift		Length	2	m	

LhARA:1:Source:Source

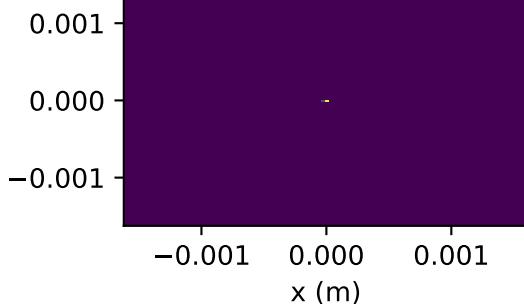


LhARA:1:Interface:Drift:1

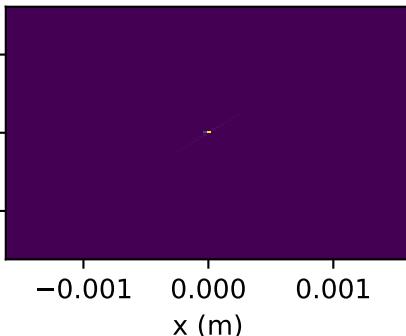


LhARA:1:Interface:Aperture:Circular:1

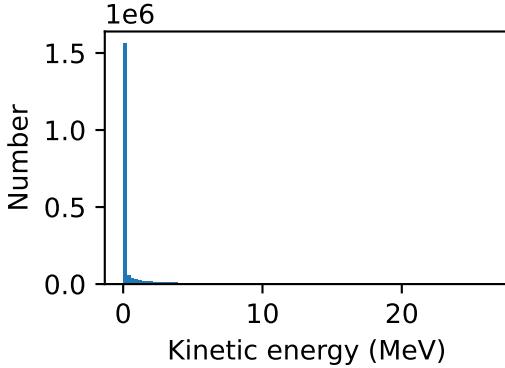
y (m)



xprime (m)

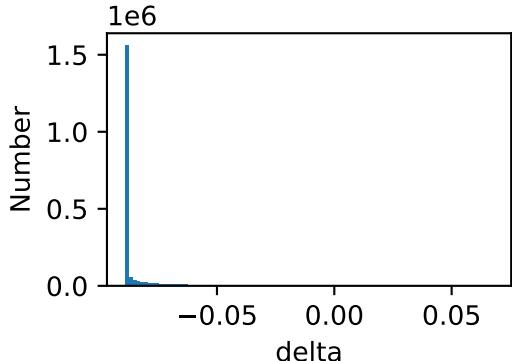


Number



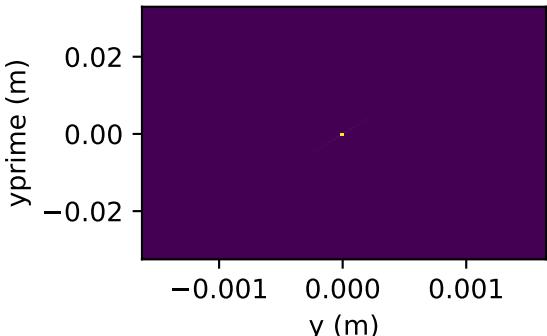
Kinetic energy (MeV)

Number



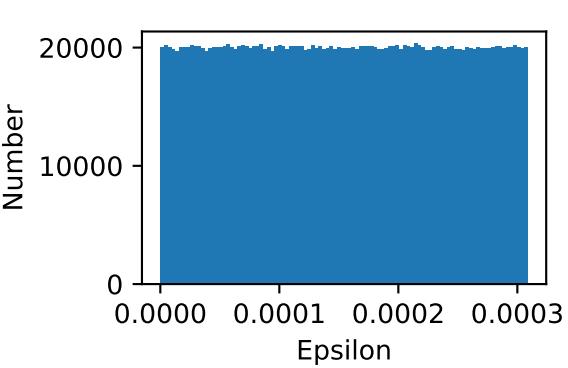
delta

yprime (m)



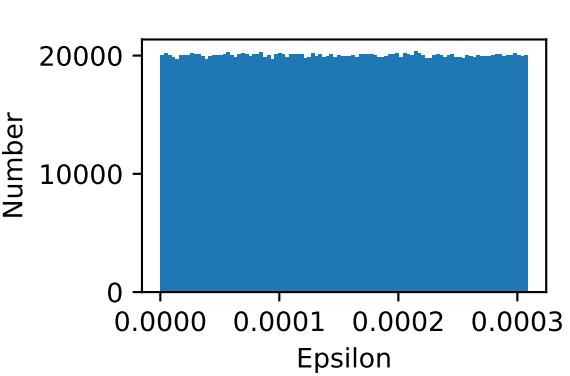
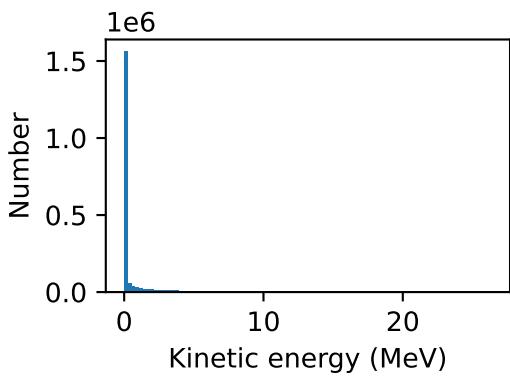
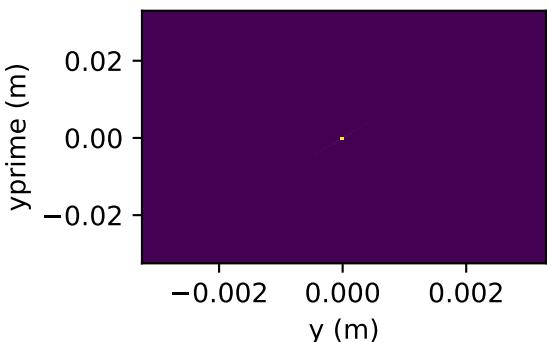
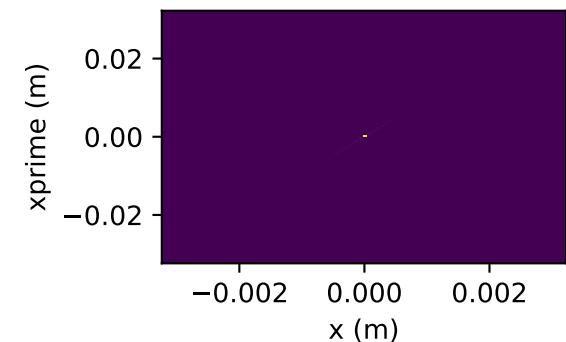
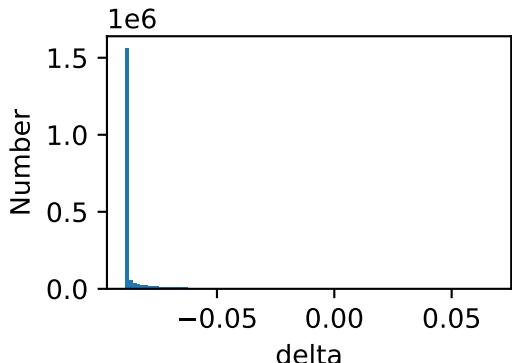
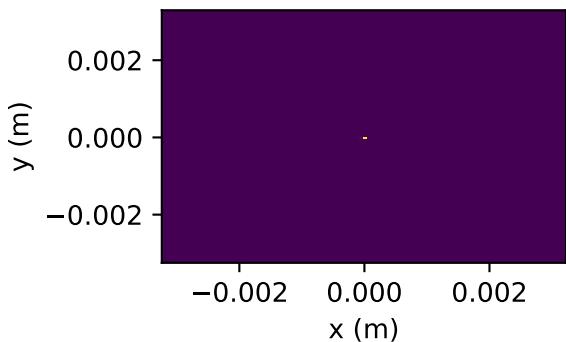
y (m)

Number

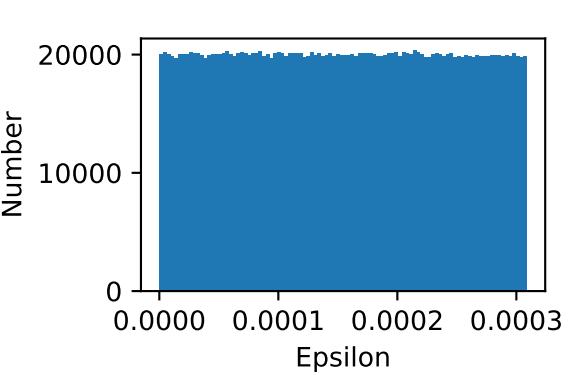
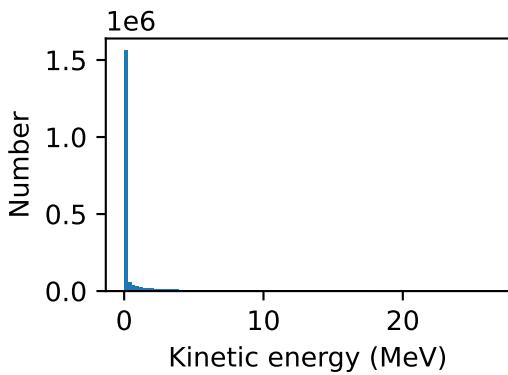
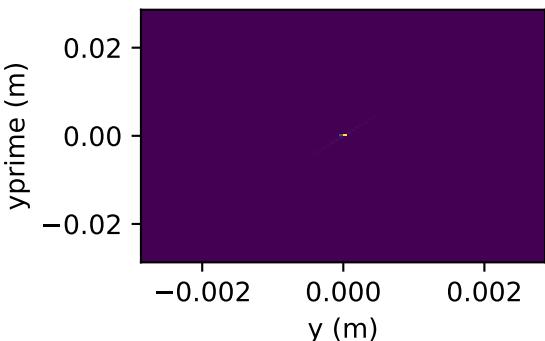
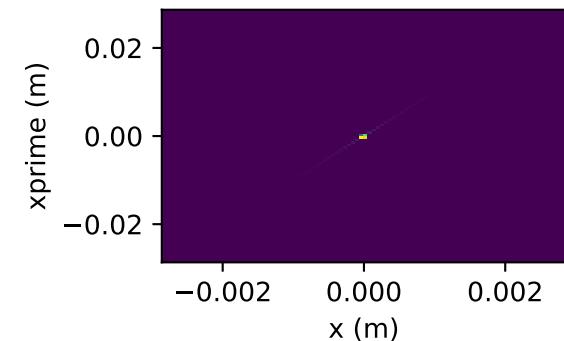
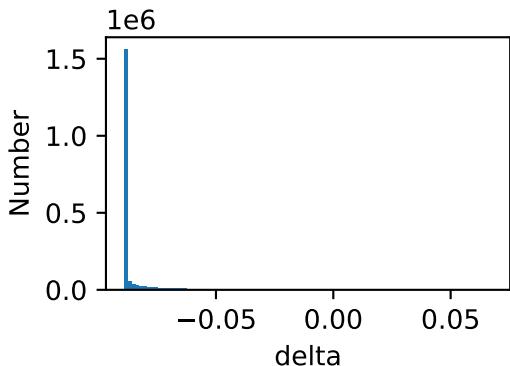
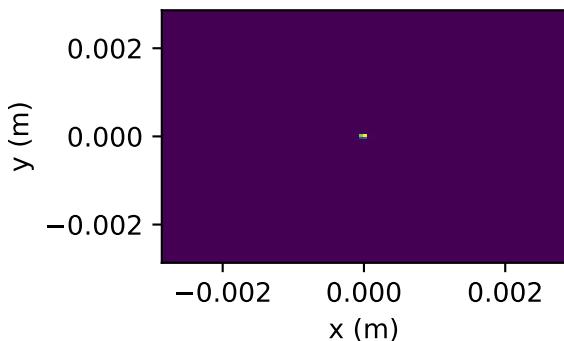


Epsilon

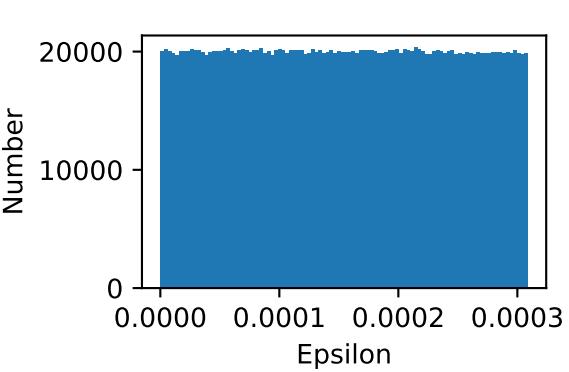
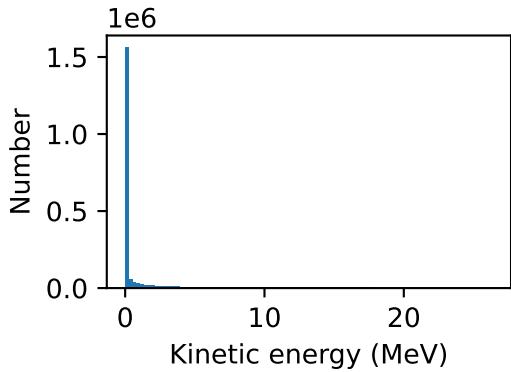
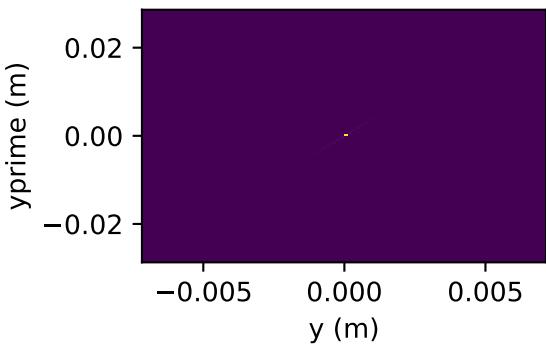
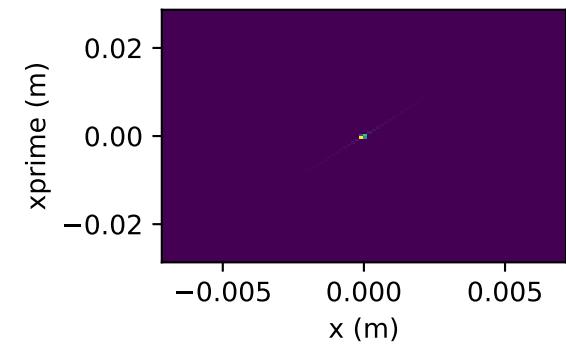
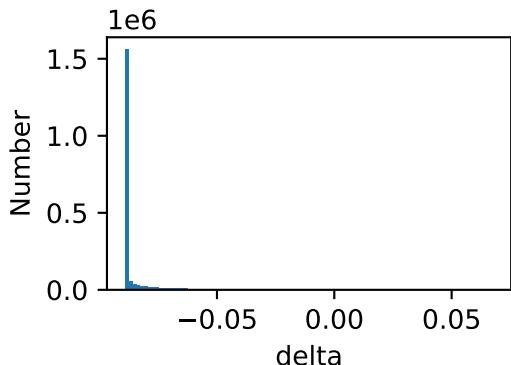
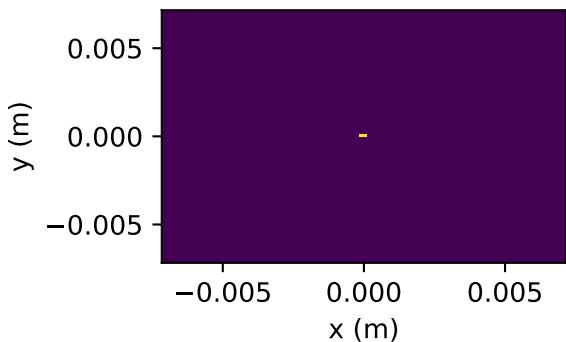
LhARA:1:Interface:Drift:2



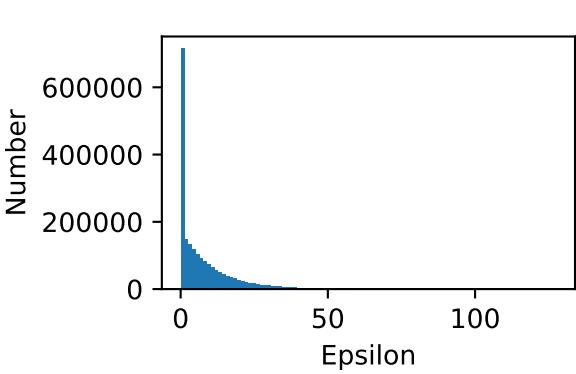
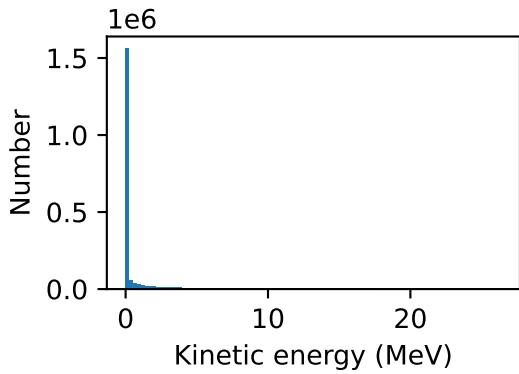
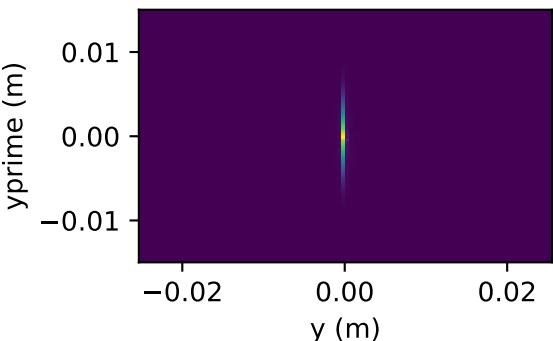
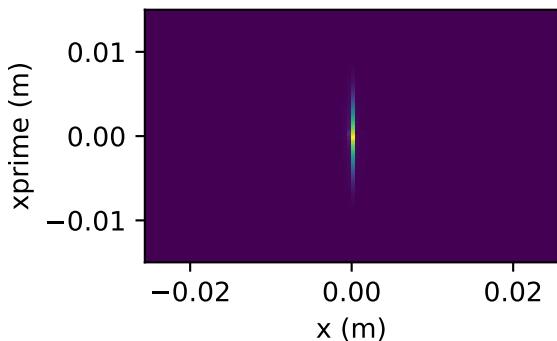
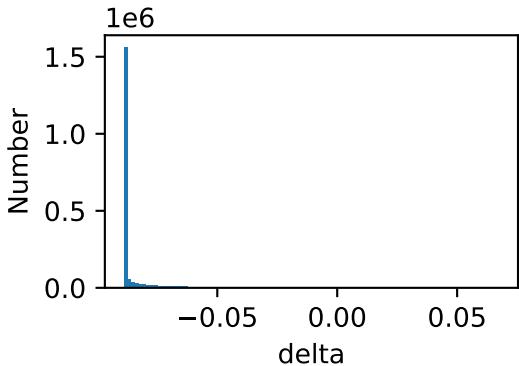
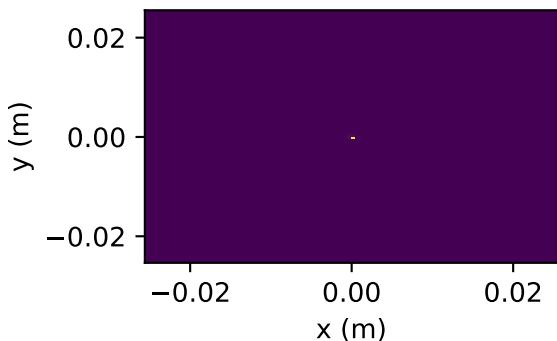
LhARA:1:Interface:Aperture:Circular:2



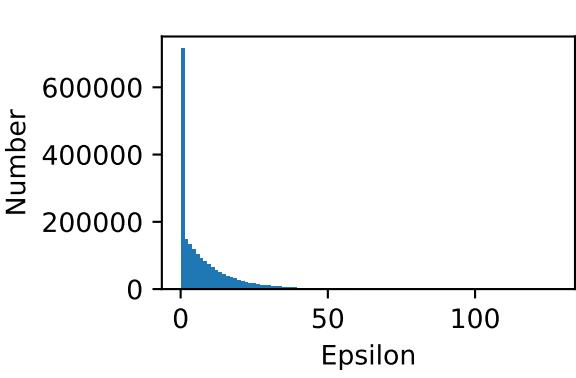
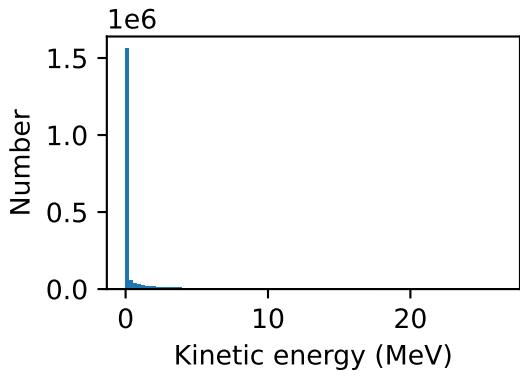
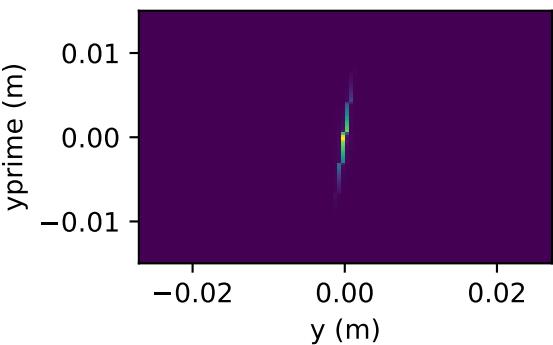
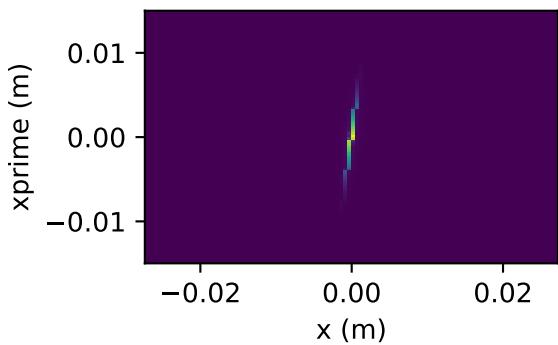
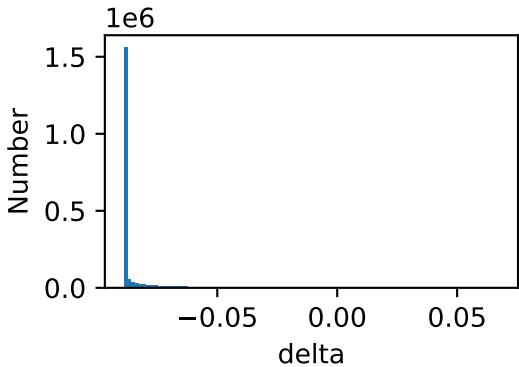
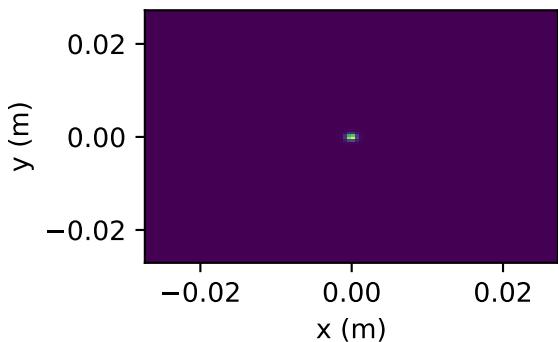
LhARA:1:Capture:Drift:1



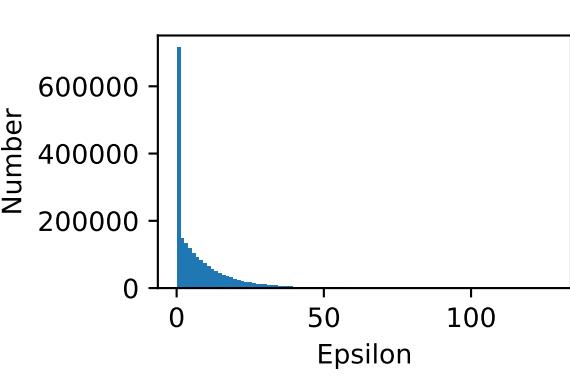
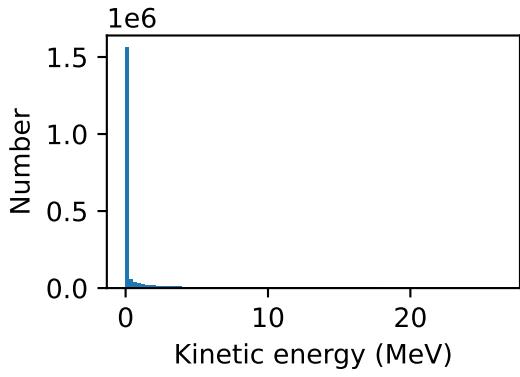
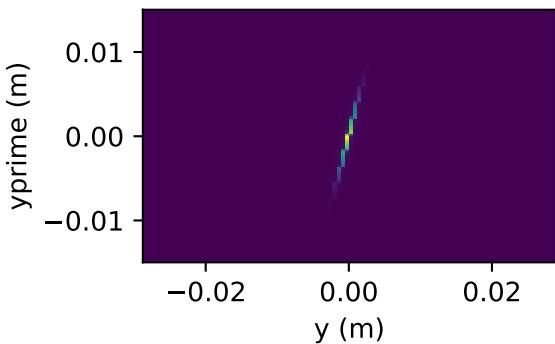
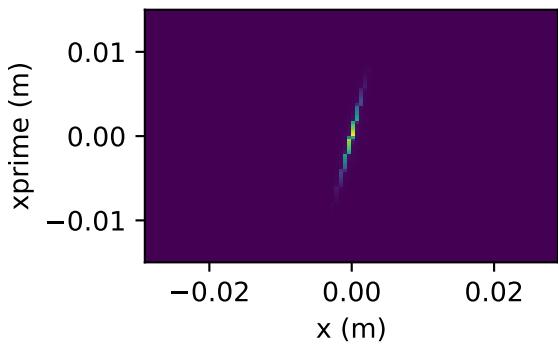
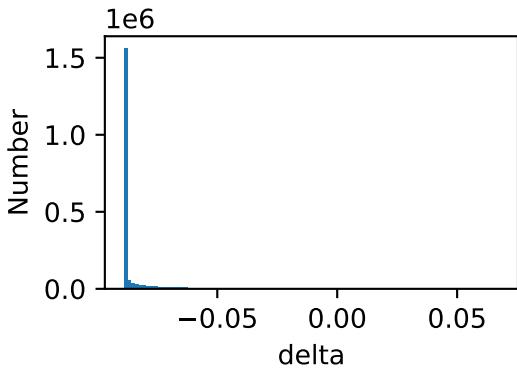
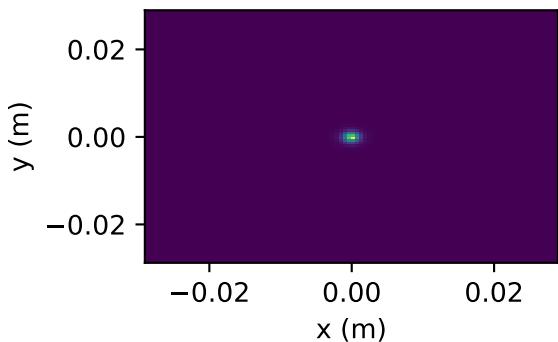
LhARA:1:Capture:Gabor lens:1



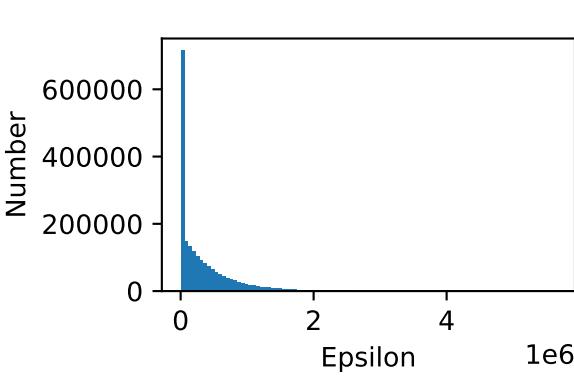
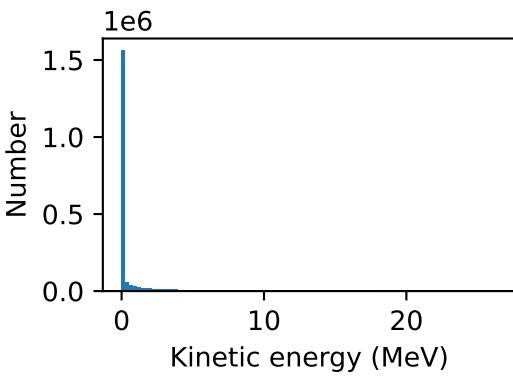
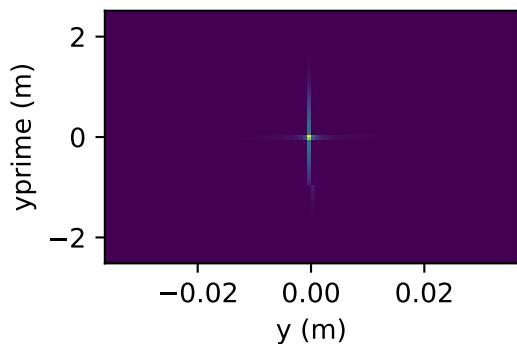
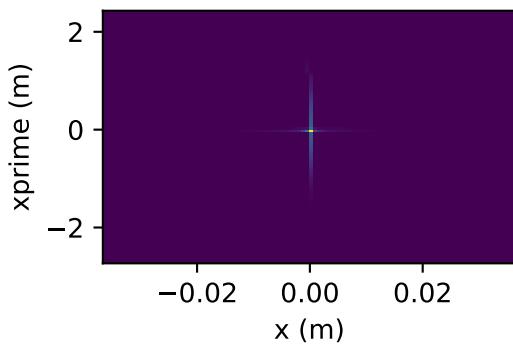
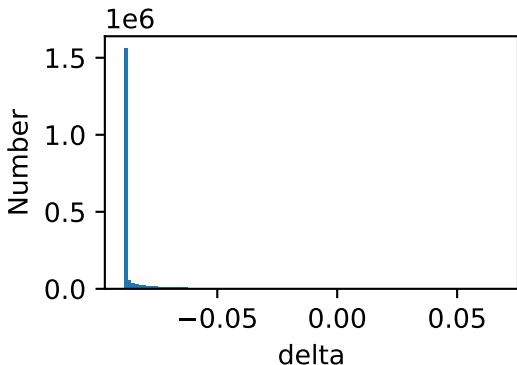
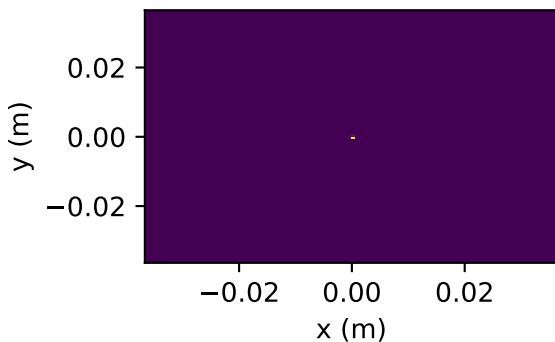
LhARA:1:Capture:Drift:2



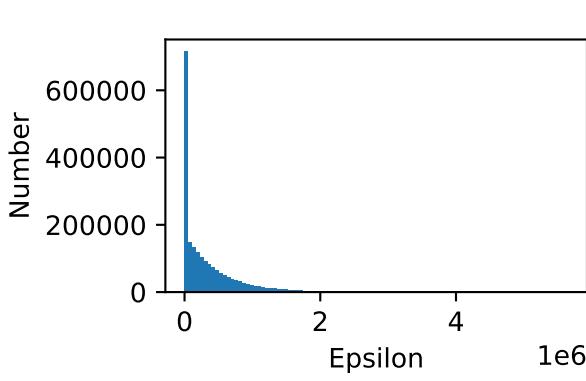
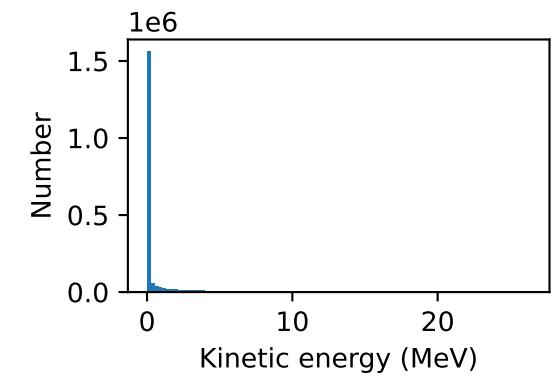
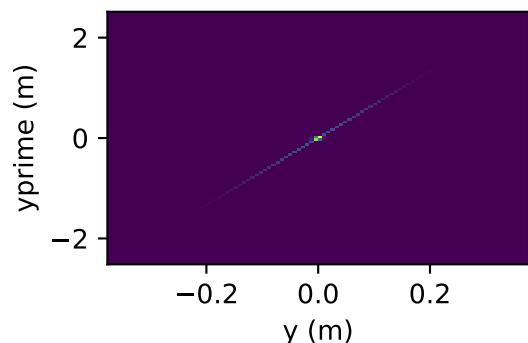
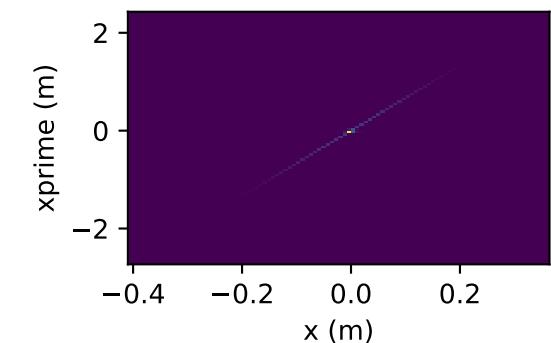
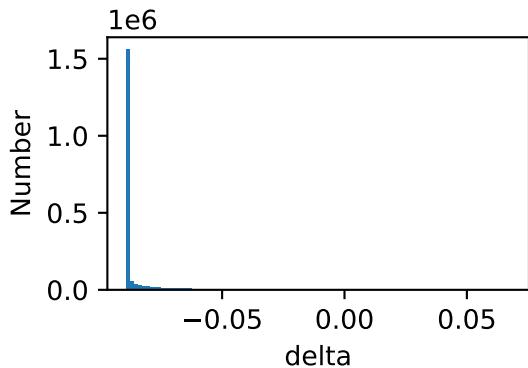
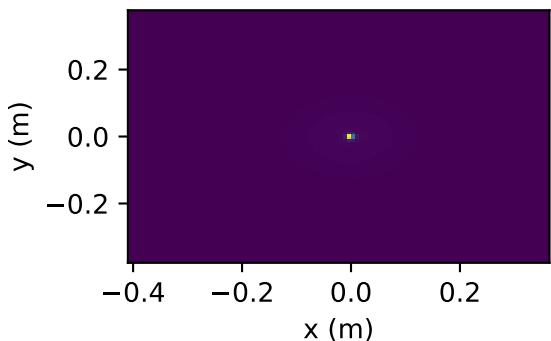
LhARA:1:Capture:Drift:3



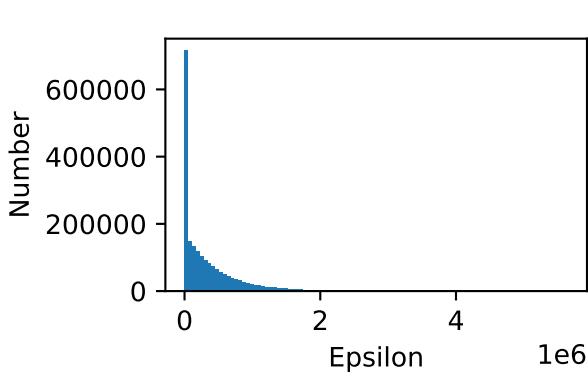
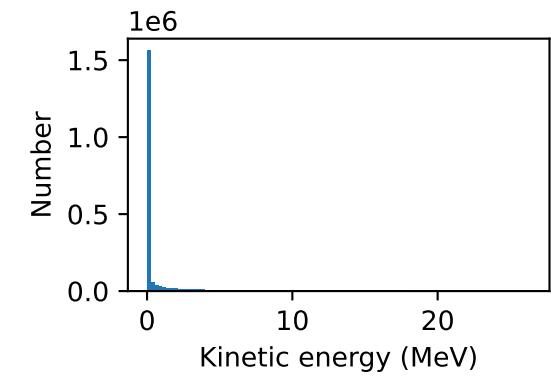
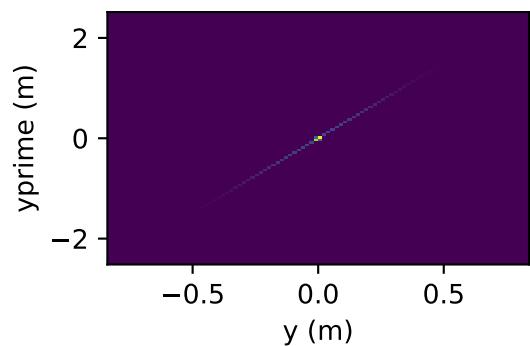
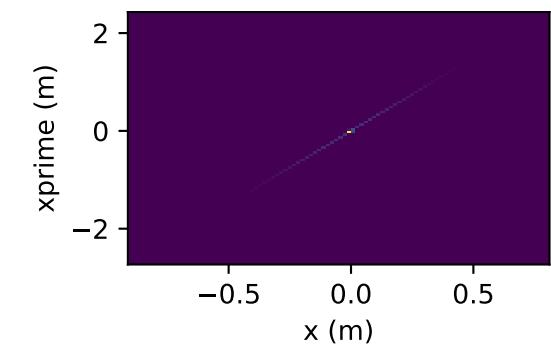
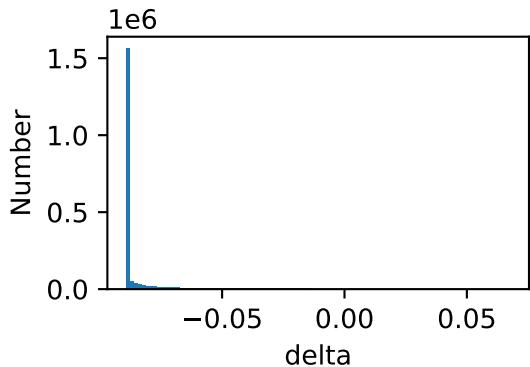
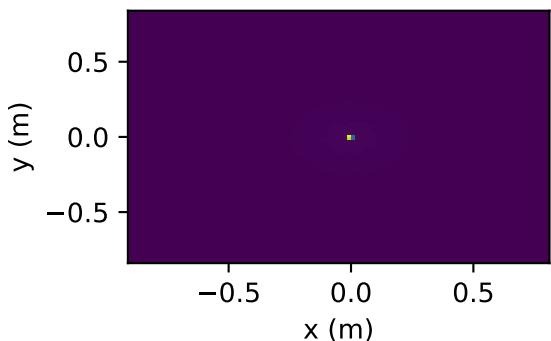
LhARA:1:Capture:Gabor lens:2



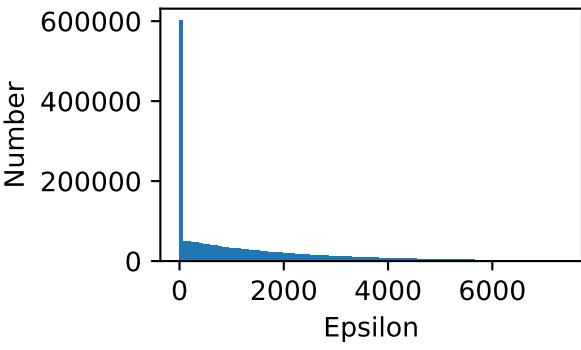
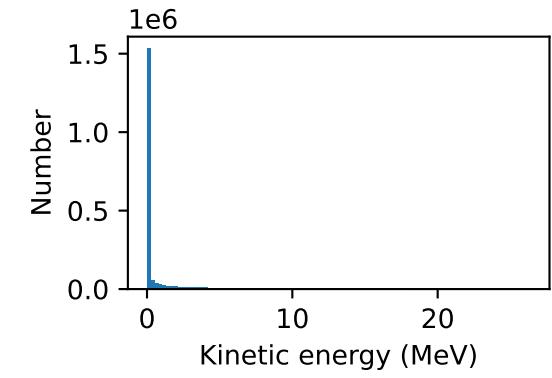
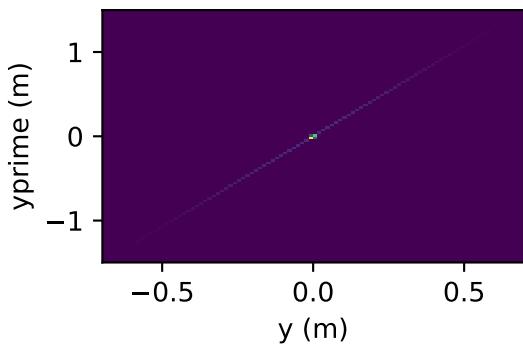
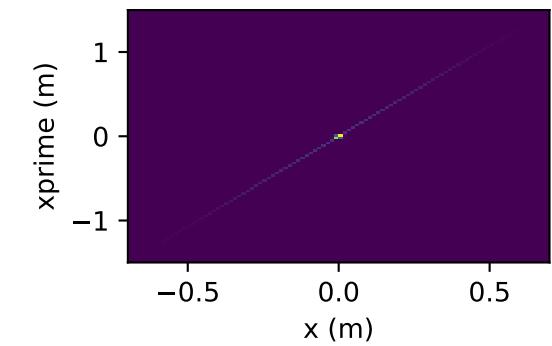
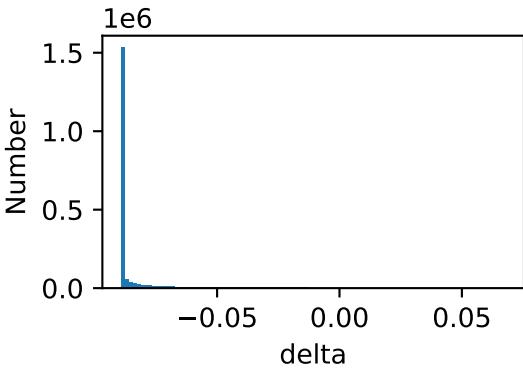
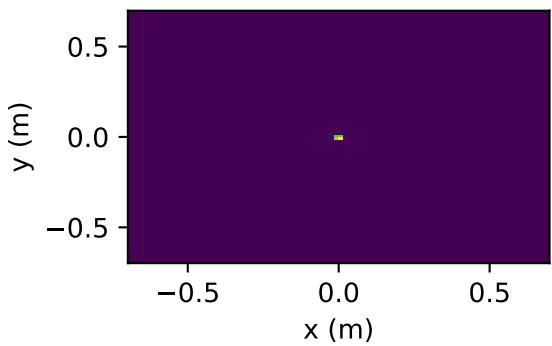
LhARA:1:Capture:Drift:4



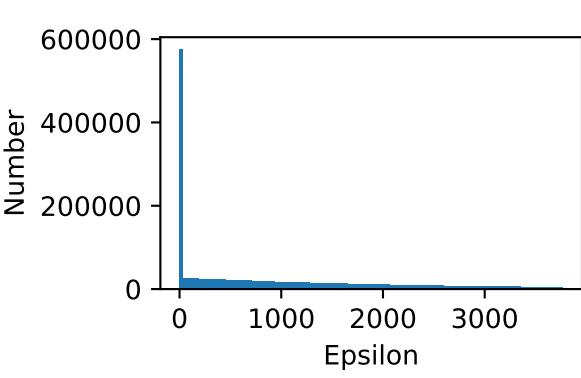
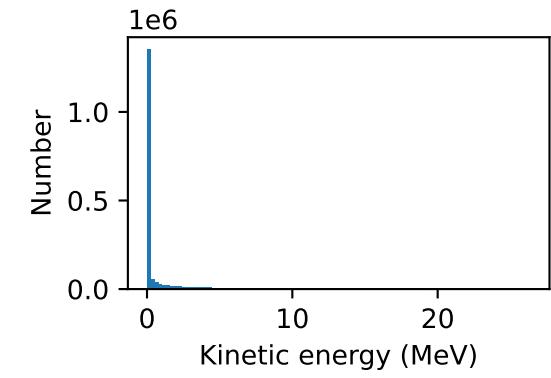
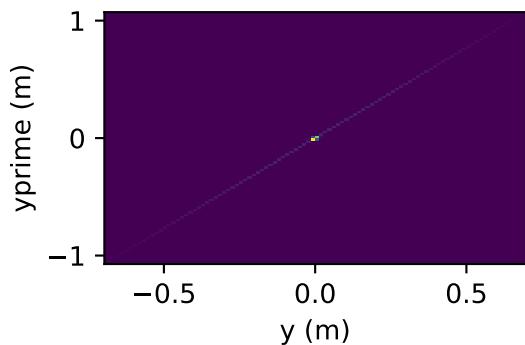
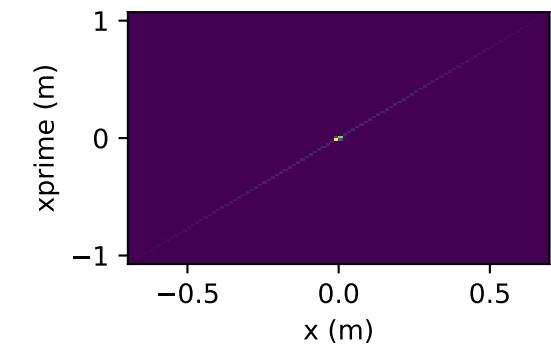
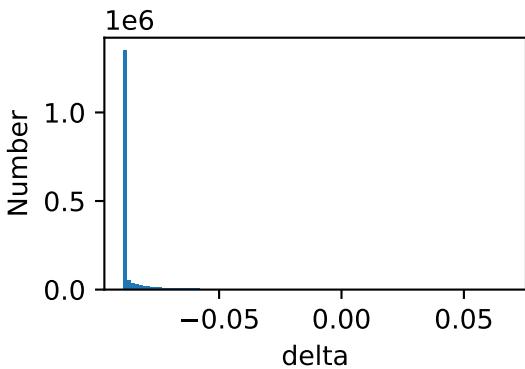
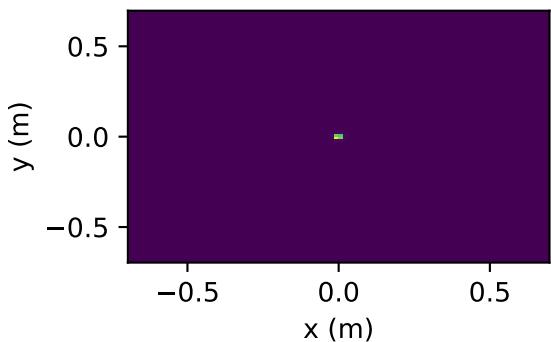
LhARA:1:Energy selection:Drift:1



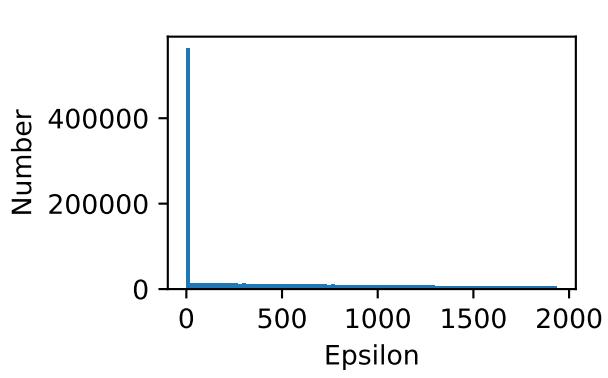
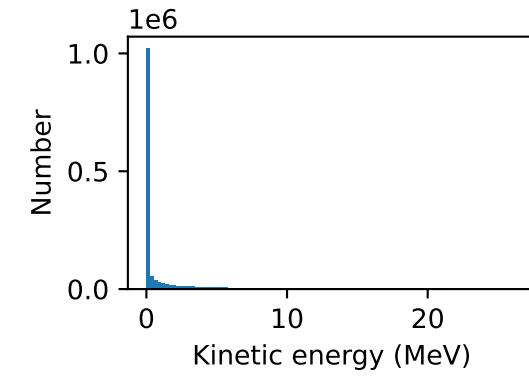
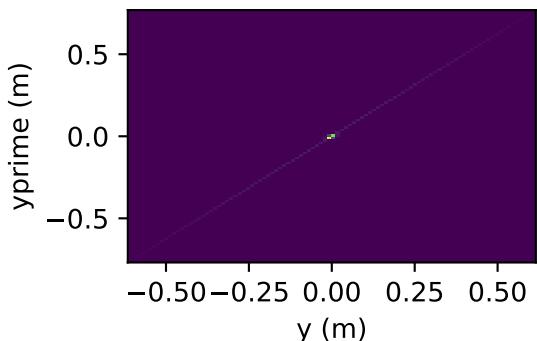
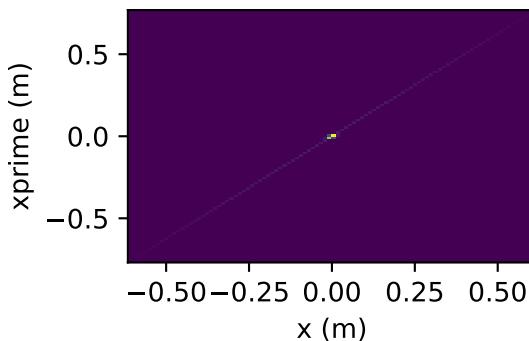
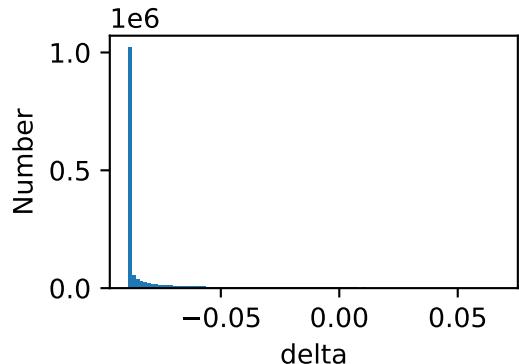
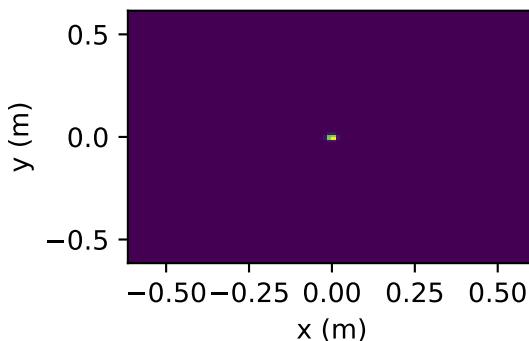
LhARA:1:Energy selection:Cavity:1



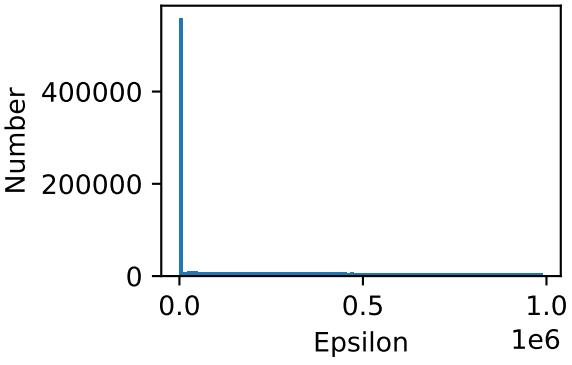
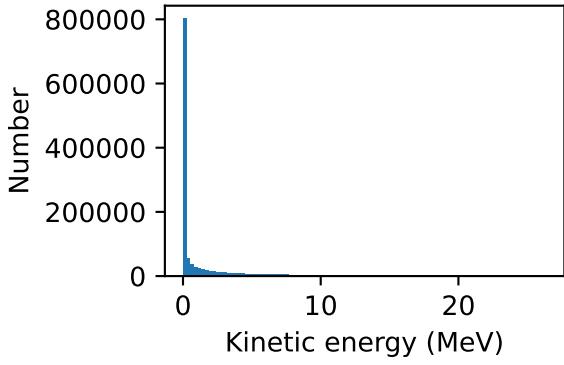
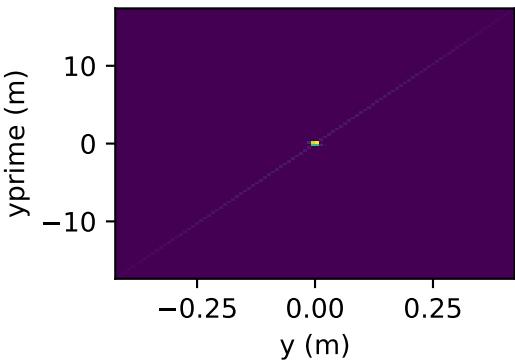
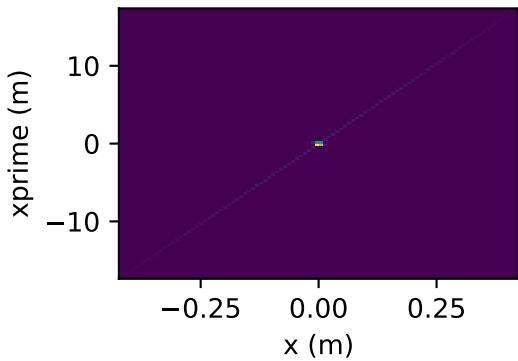
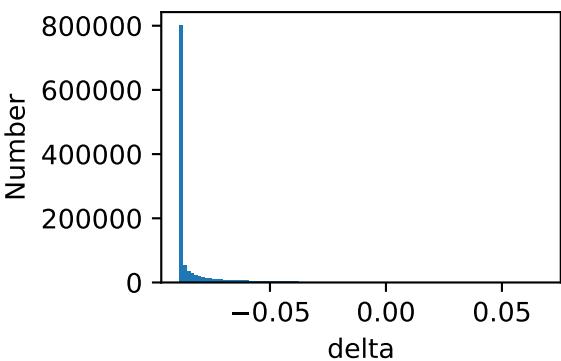
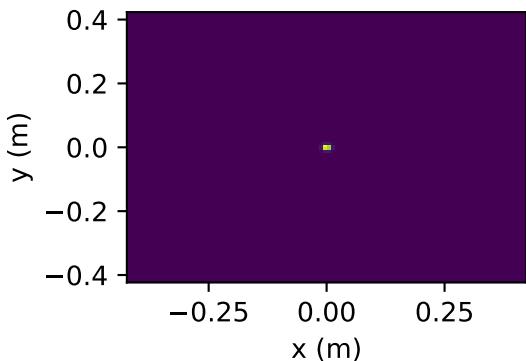
LhARA:1:Energy selection:Drift:2



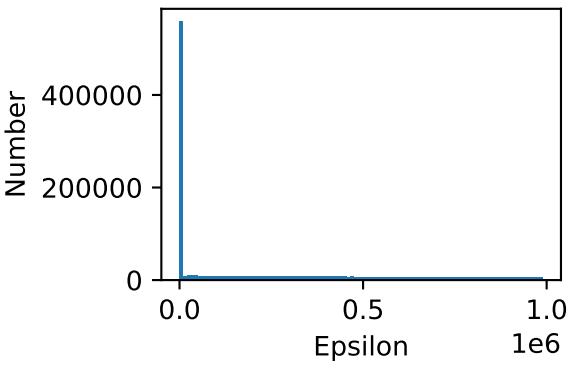
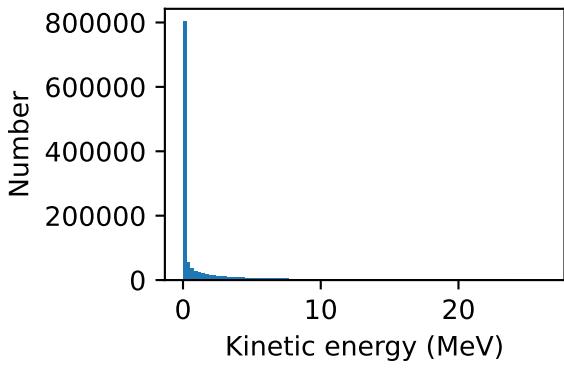
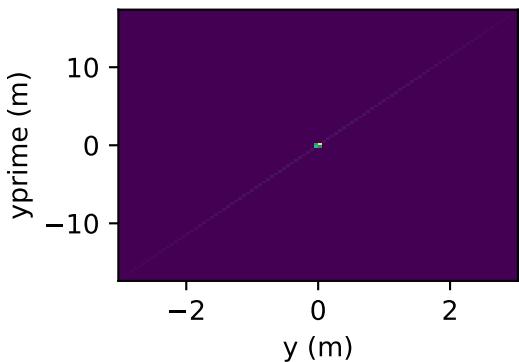
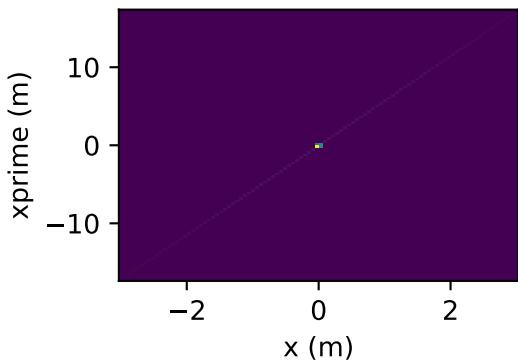
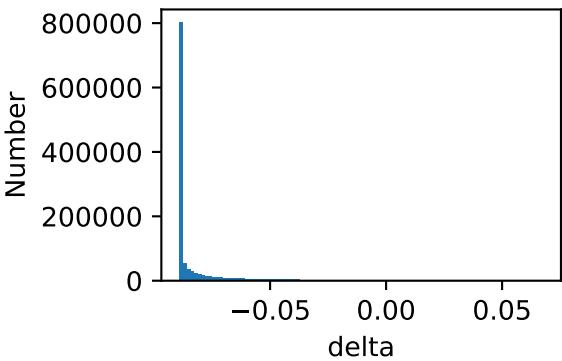
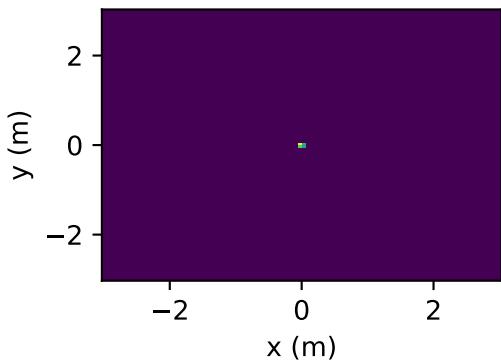
LhARA:1:Energy selection:Drift:3



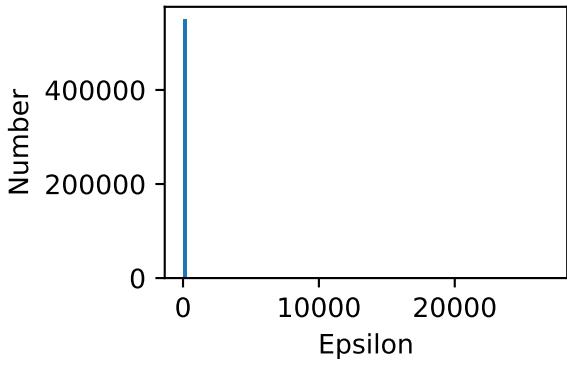
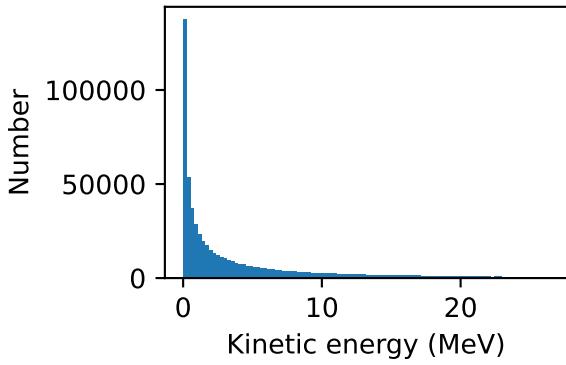
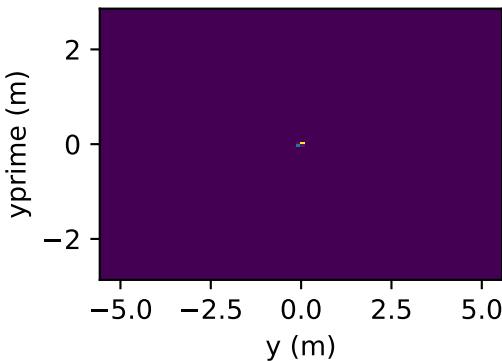
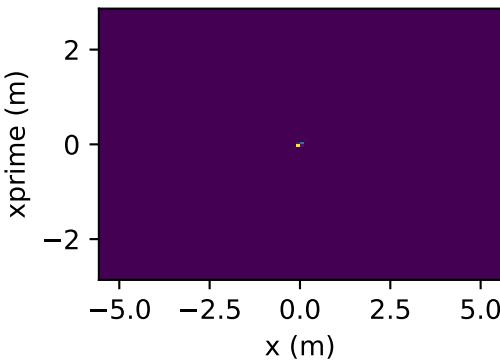
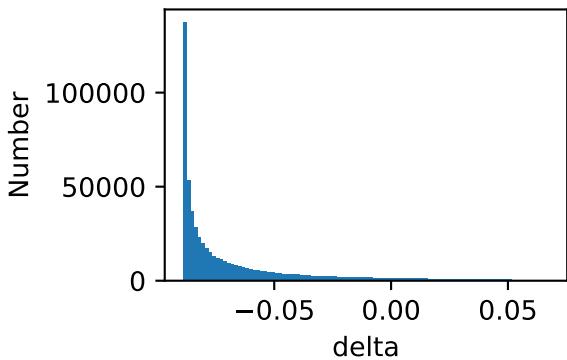
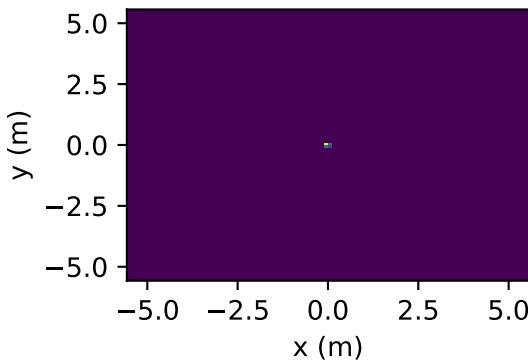
LhARA:1:Energy selection:Gabor lens:1



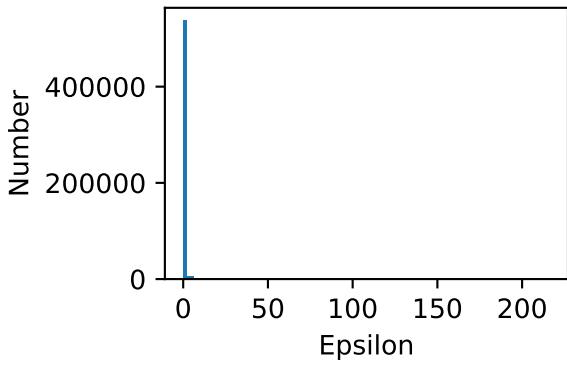
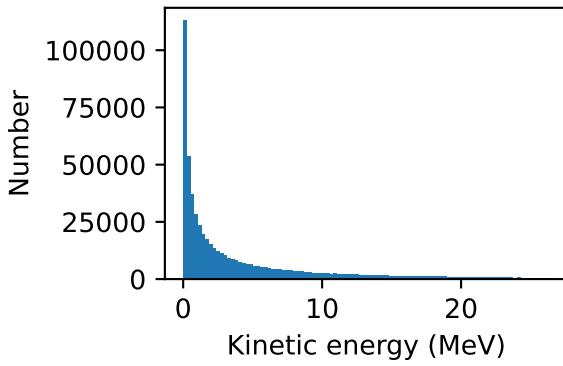
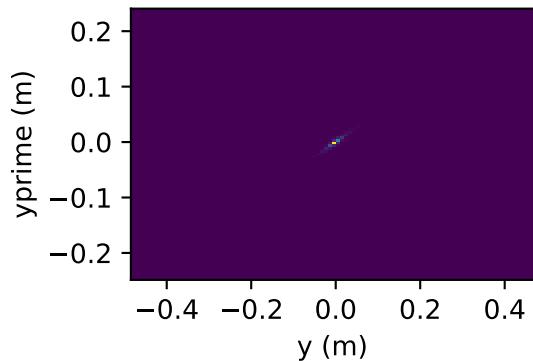
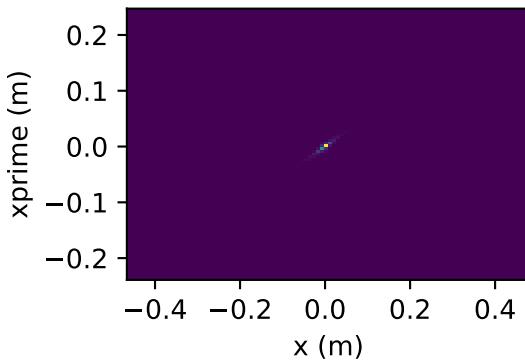
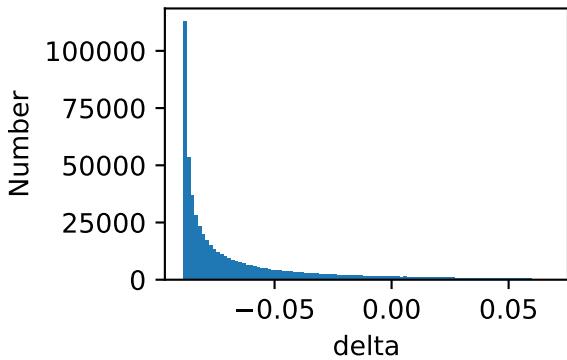
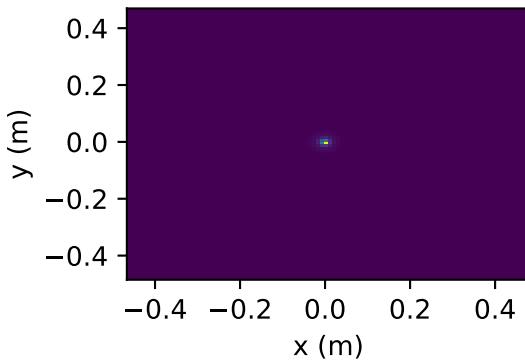
LhARA:1:Energy selection:Drift:4



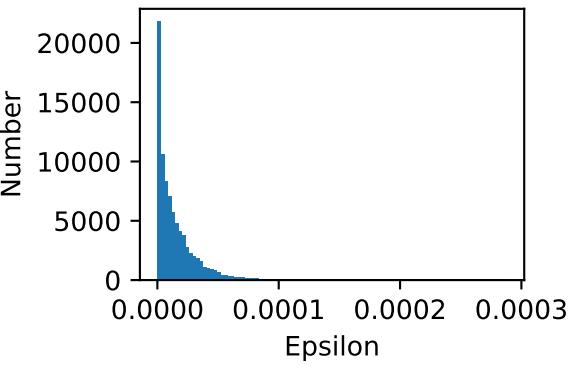
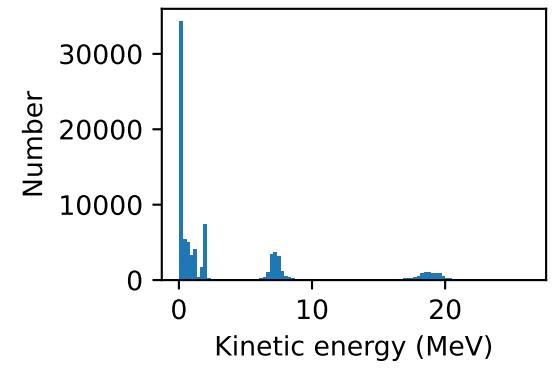
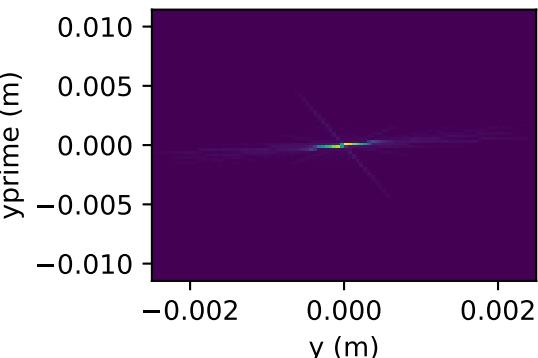
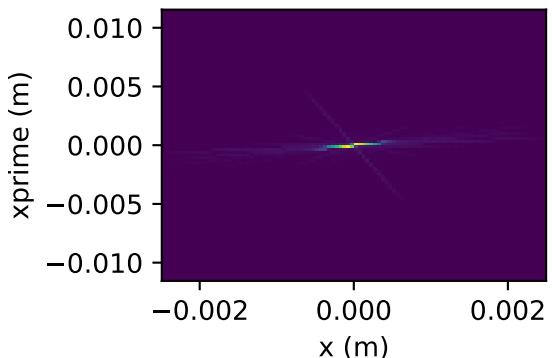
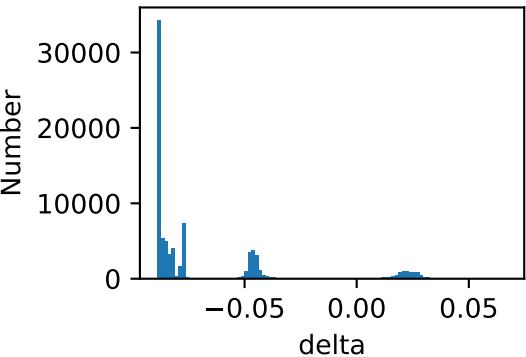
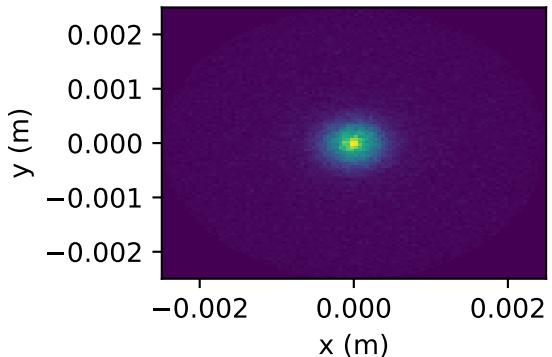
LhARA:1:Energy selection:Drift:5



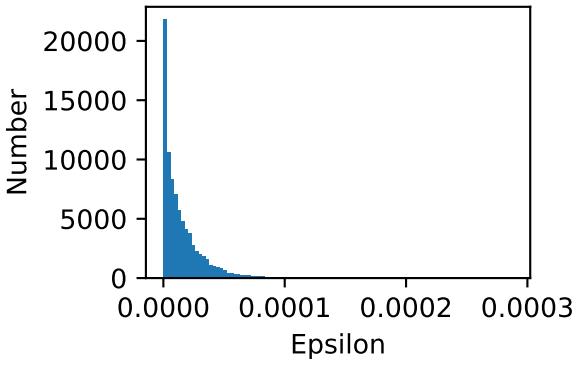
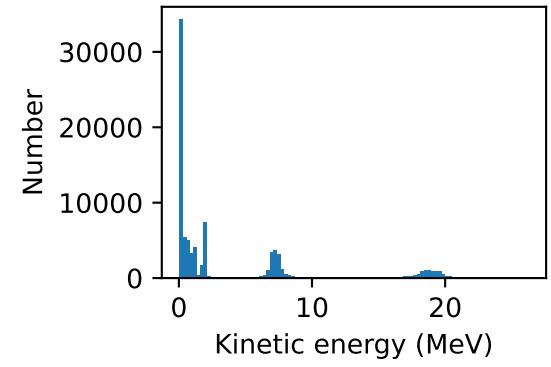
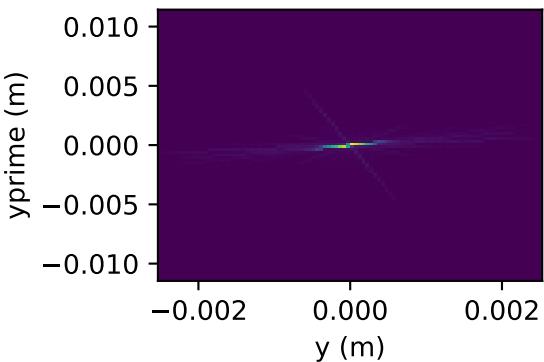
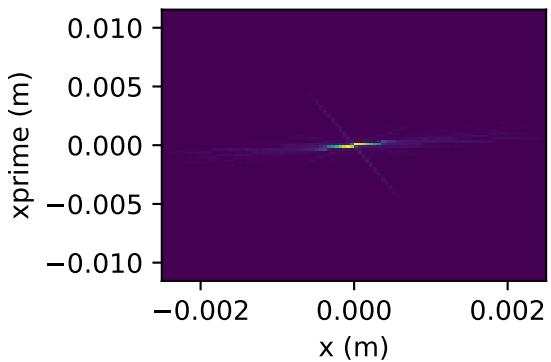
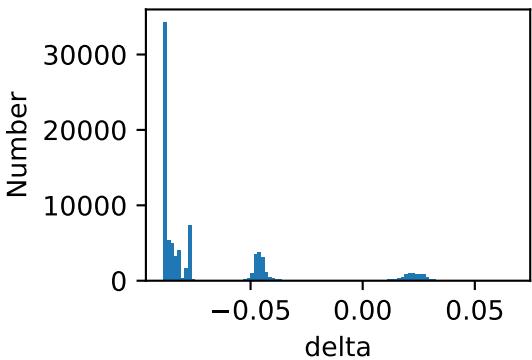
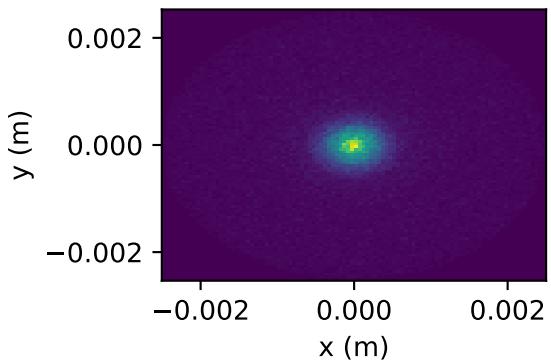
LhARA:1:Energy selection:Drift:6



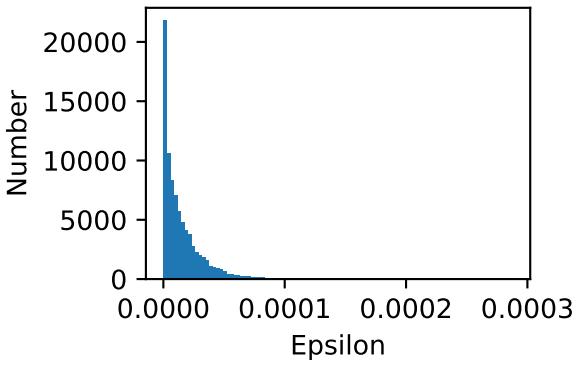
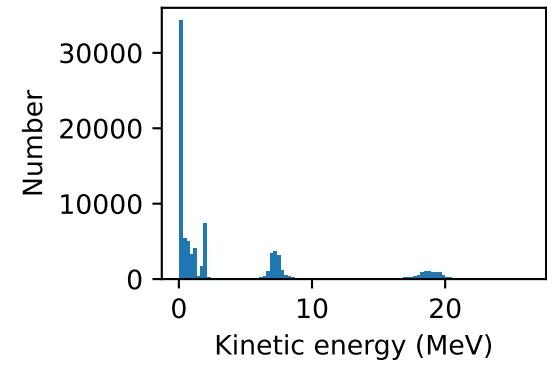
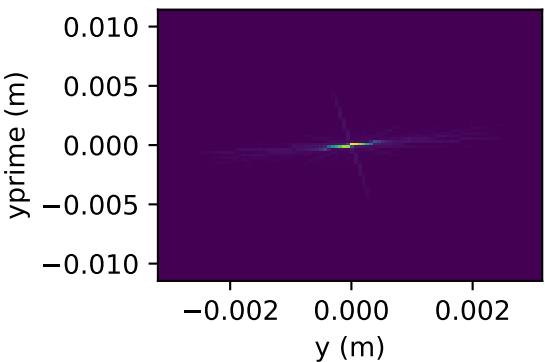
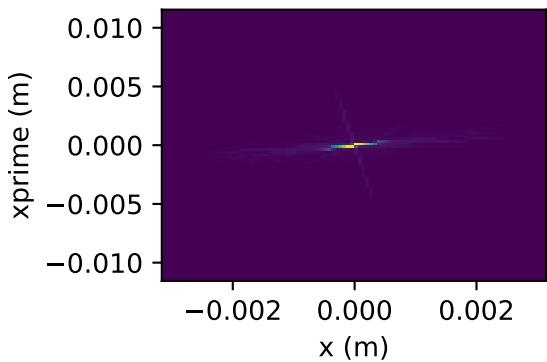
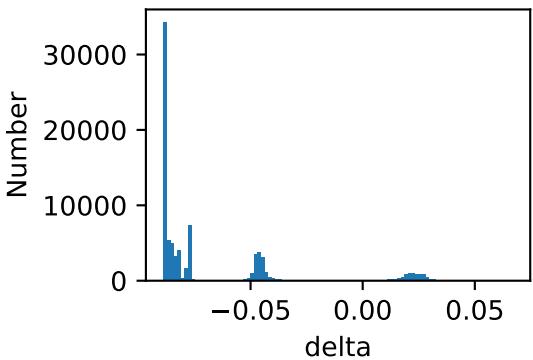
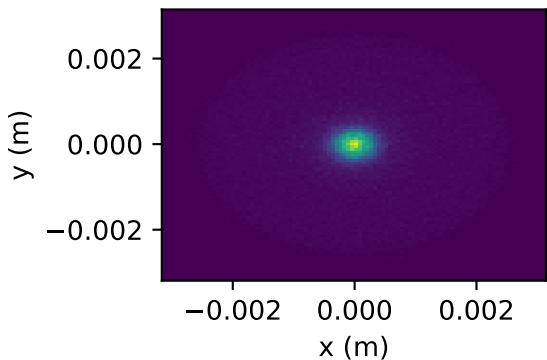
LhARA:1:Energy selection:Aperture:Circular:1



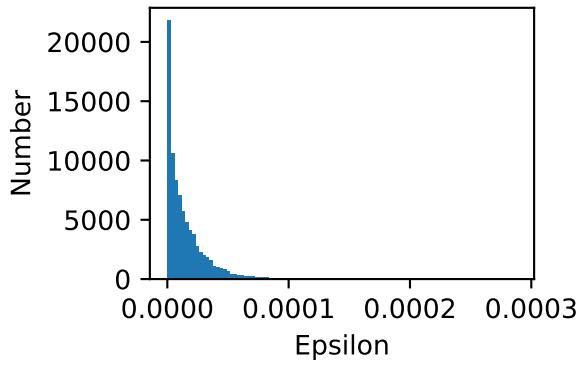
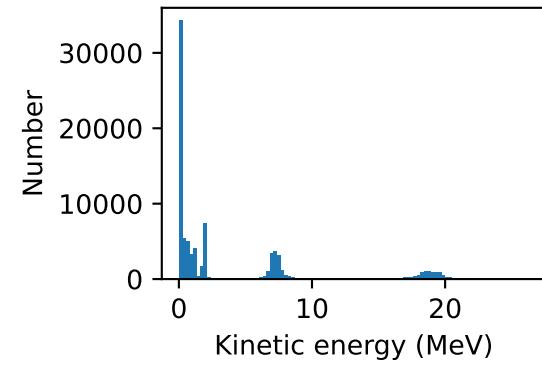
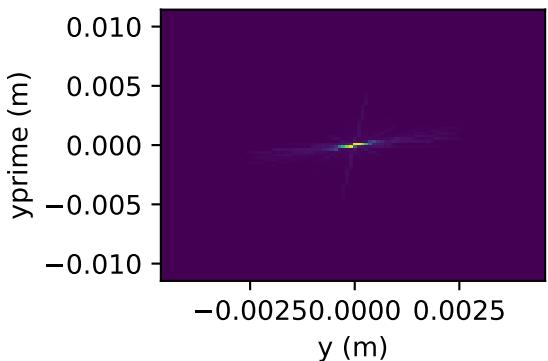
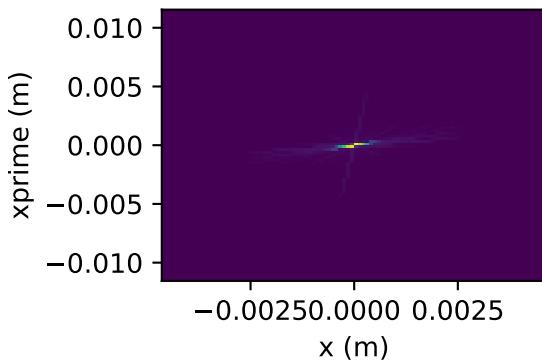
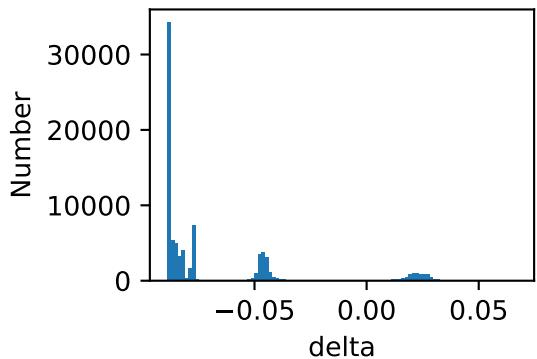
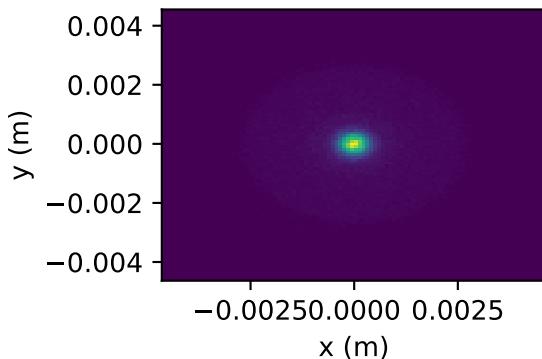
LhARA:1:Energy selection:Drift:7



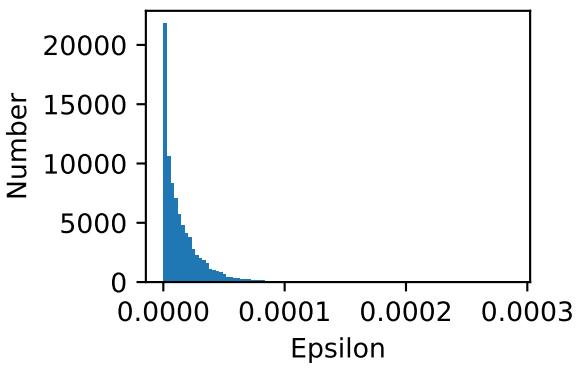
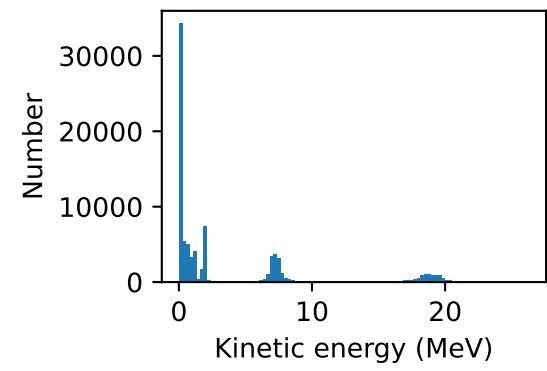
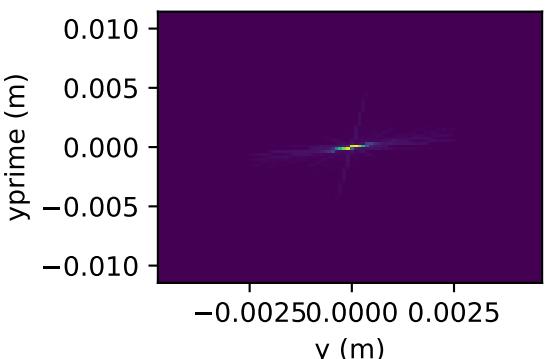
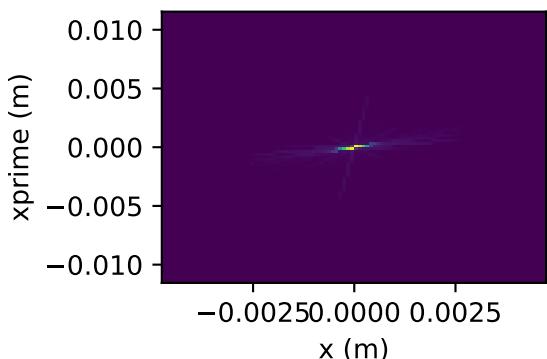
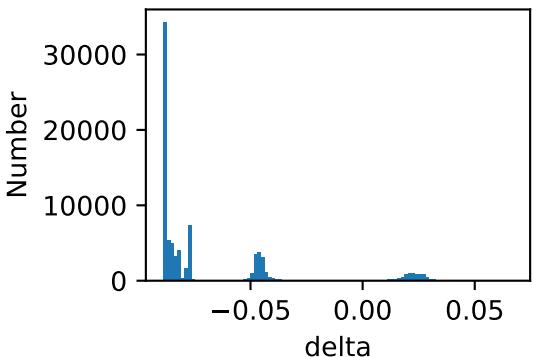
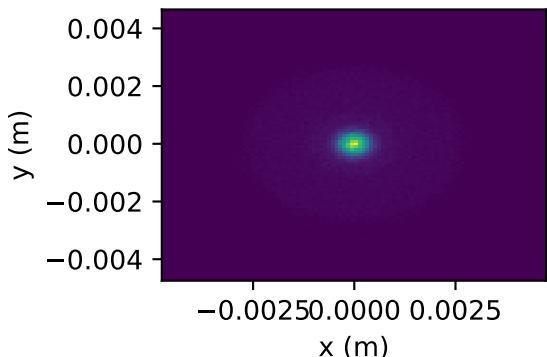
LhARA:1:Energy selection:Drift:8



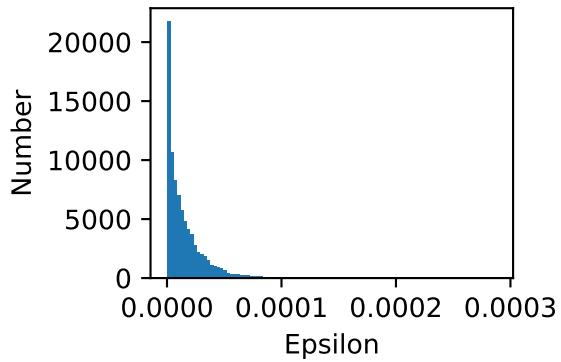
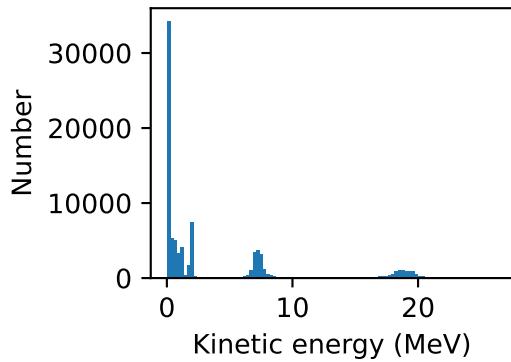
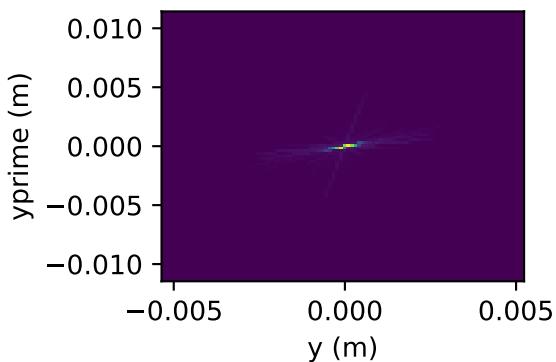
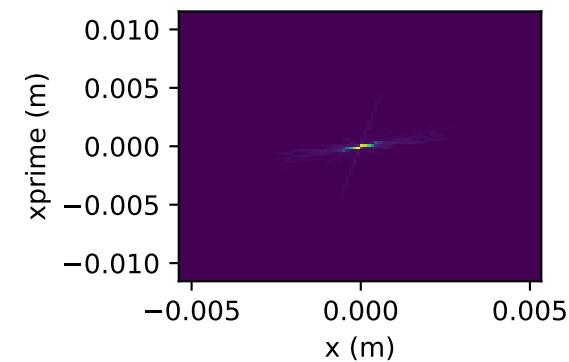
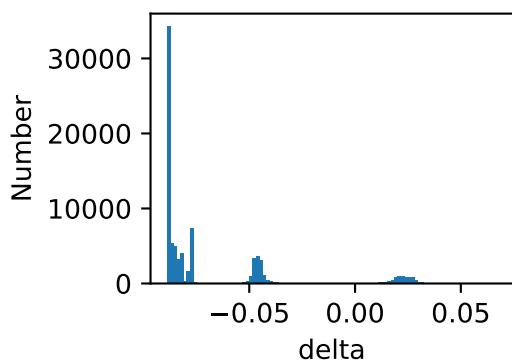
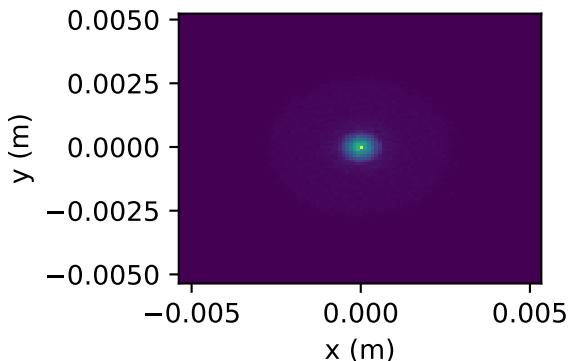
LhARA:1:Energy selection:Drift:9



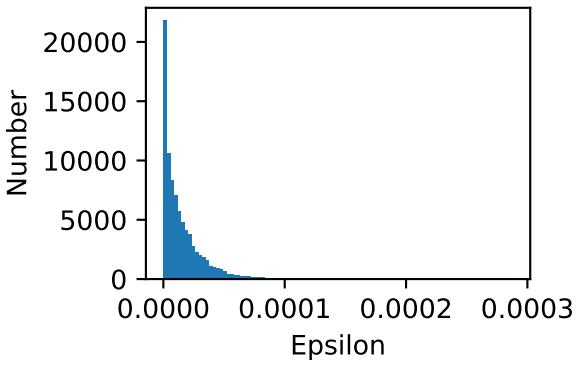
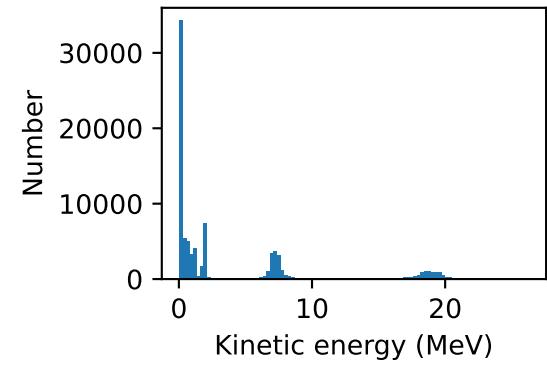
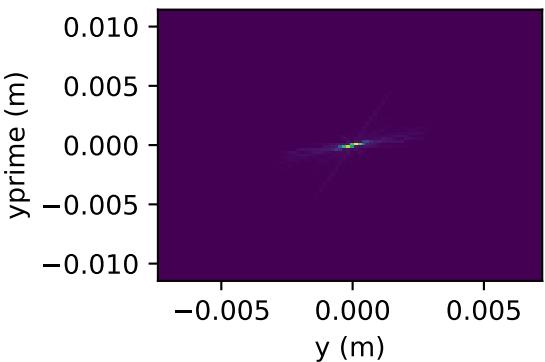
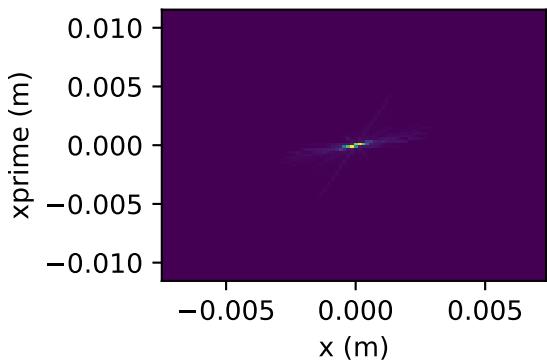
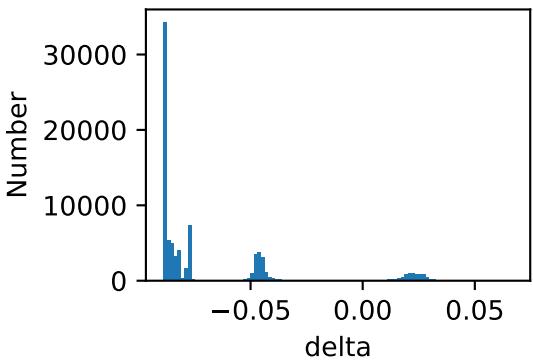
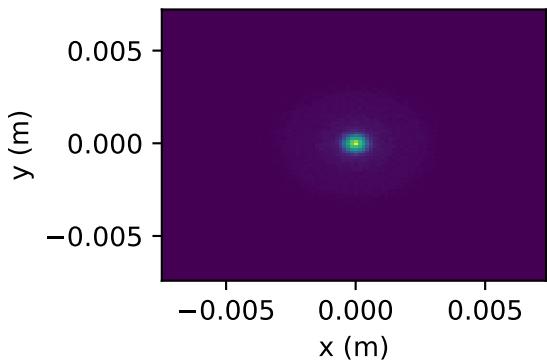
LhARA:1:Energy selection:Drift:10



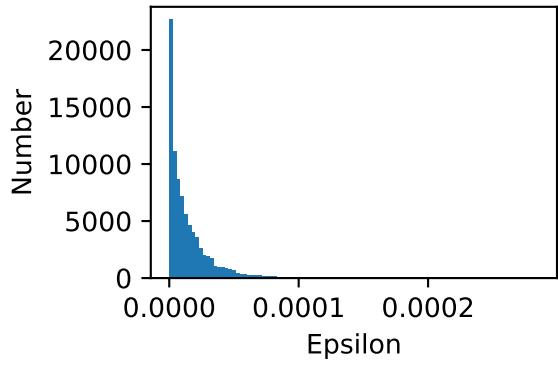
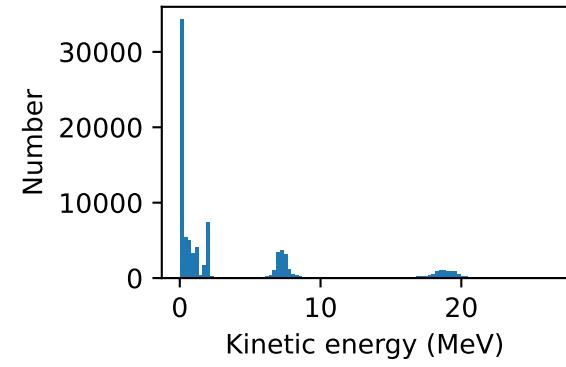
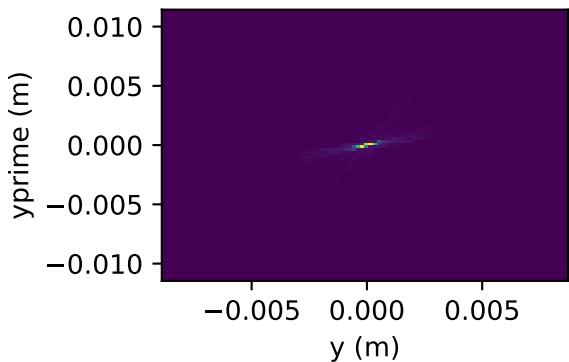
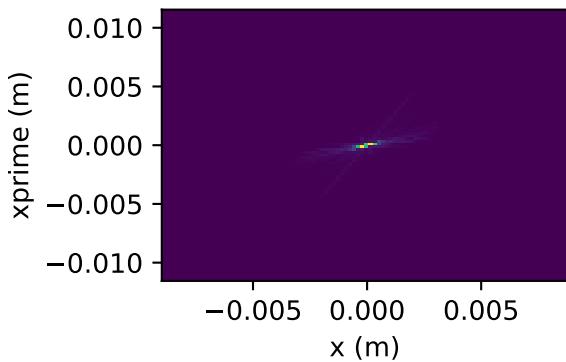
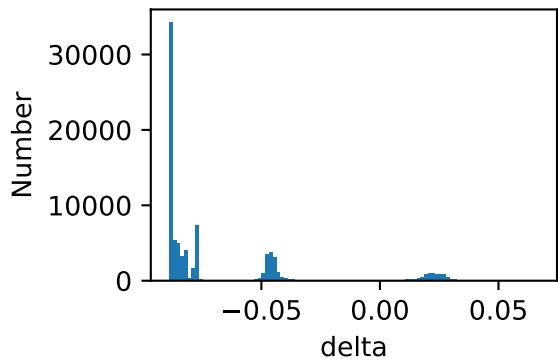
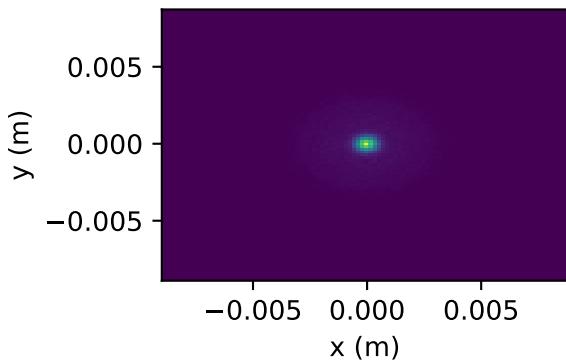
LhARA:1:Energy selection:Drift:11



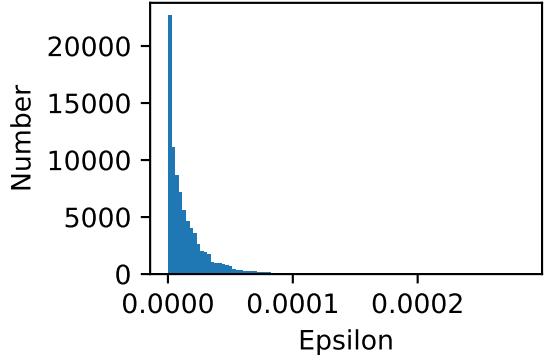
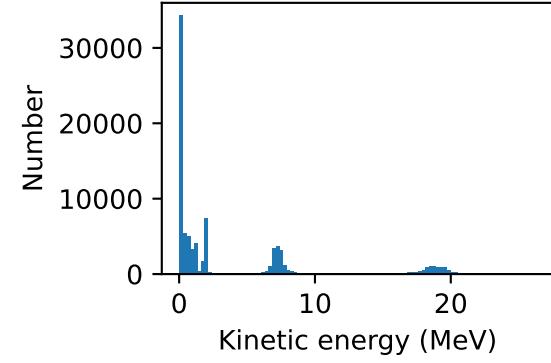
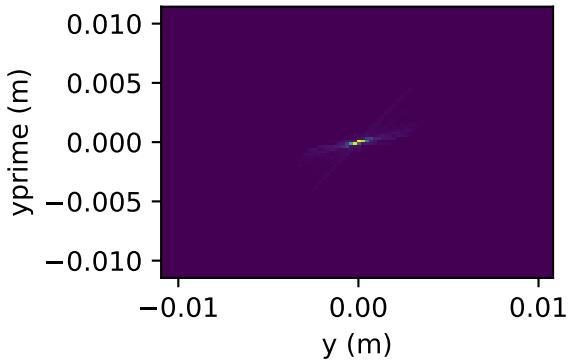
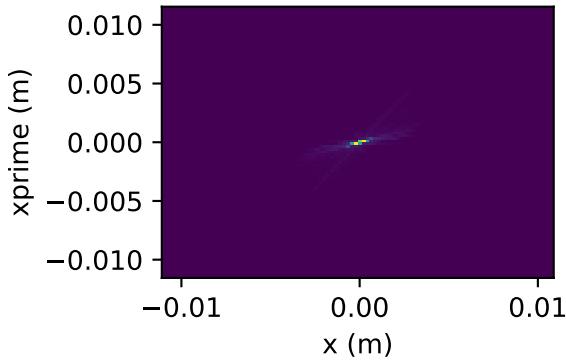
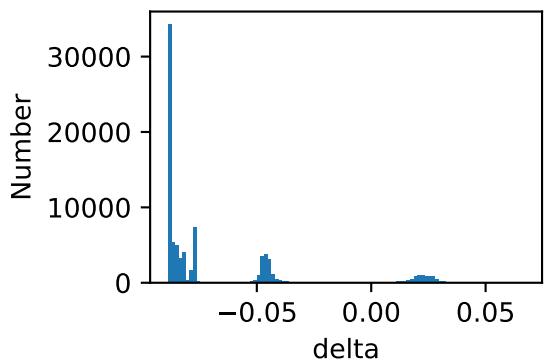
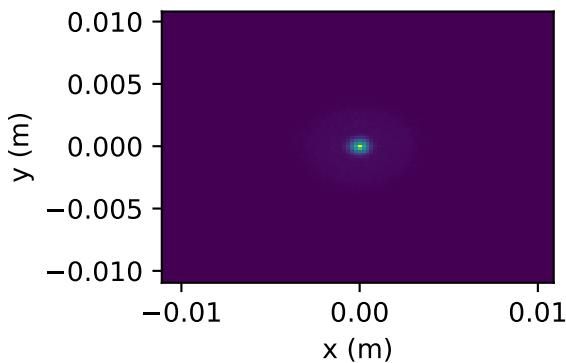
LhARA:1:Energy selection:Drift:12



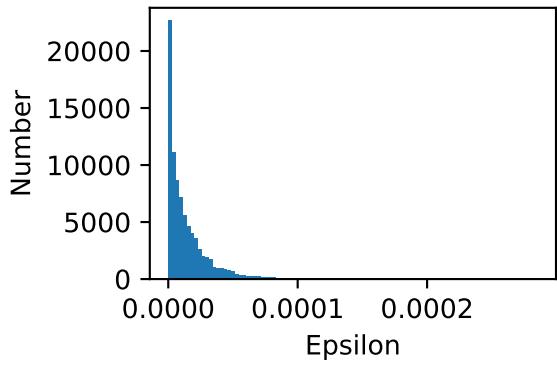
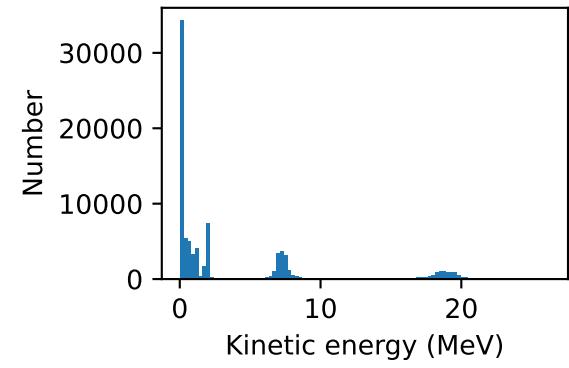
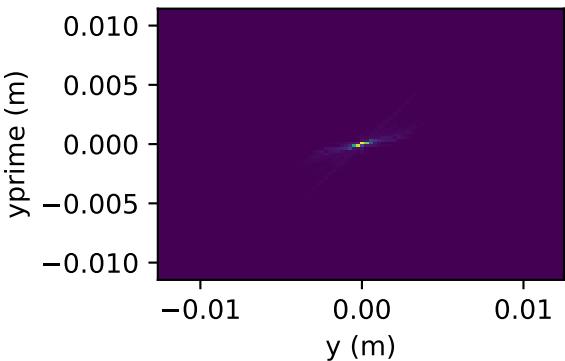
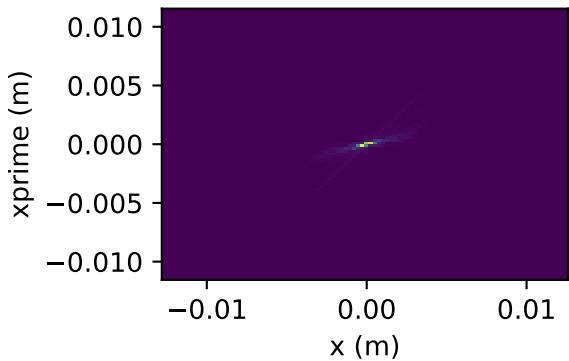
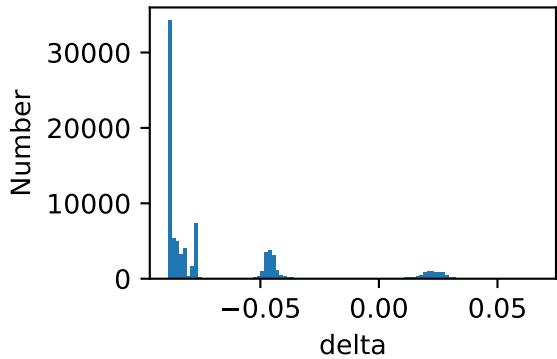
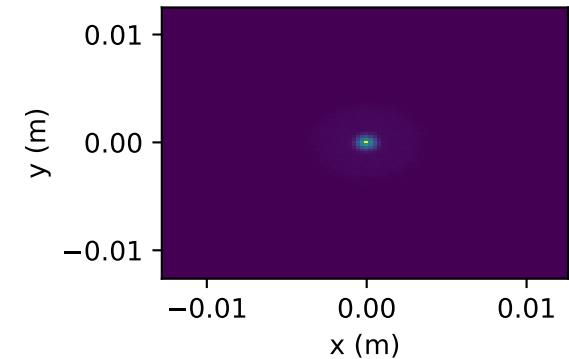
LhARA:1:Energy selection:Cavity:2



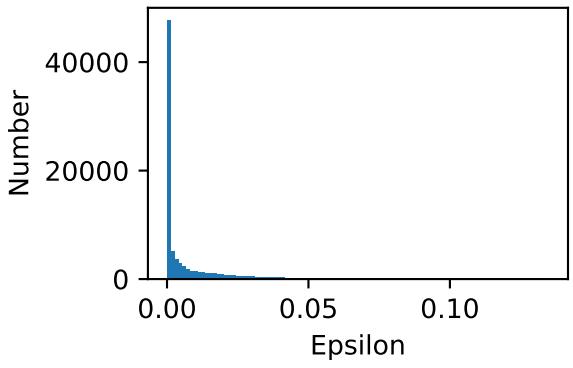
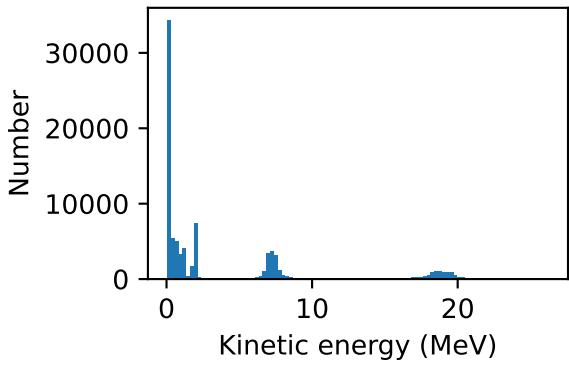
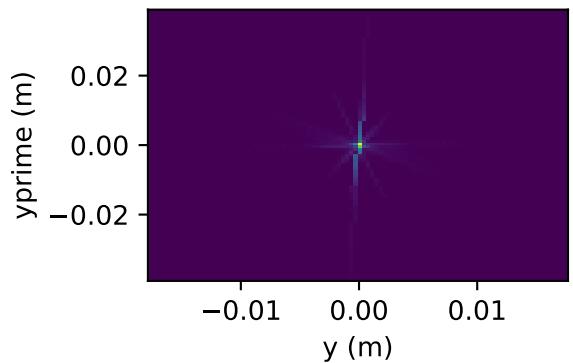
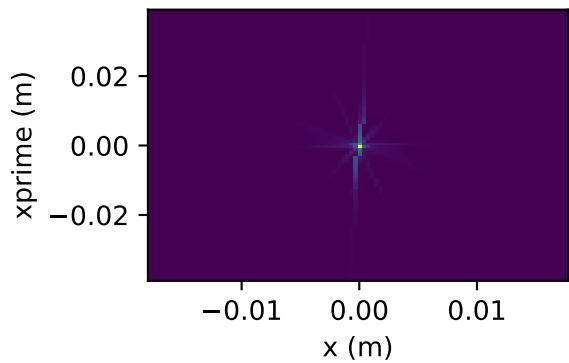
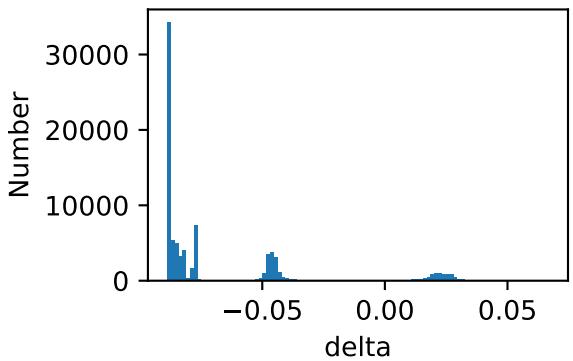
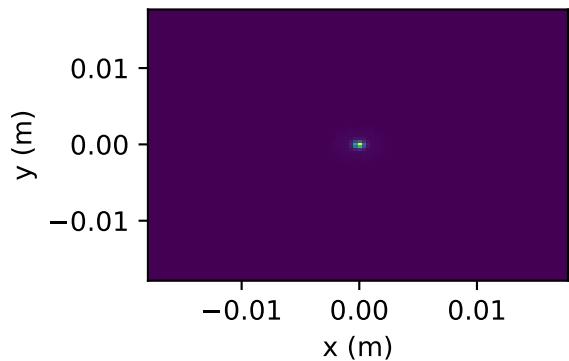
LhARA:1:Energy selection:Drift:13



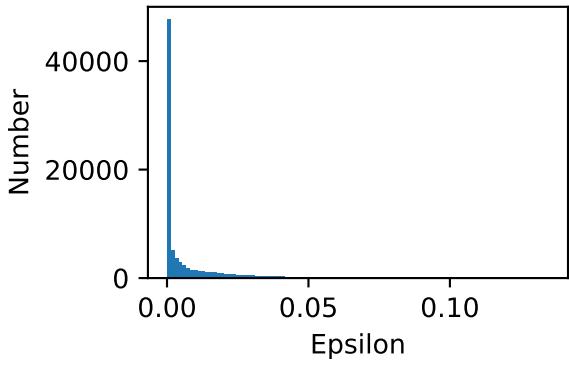
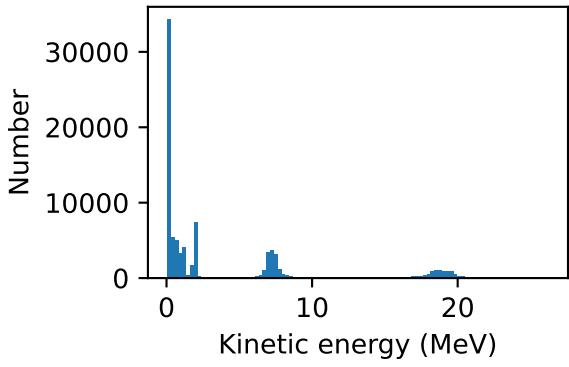
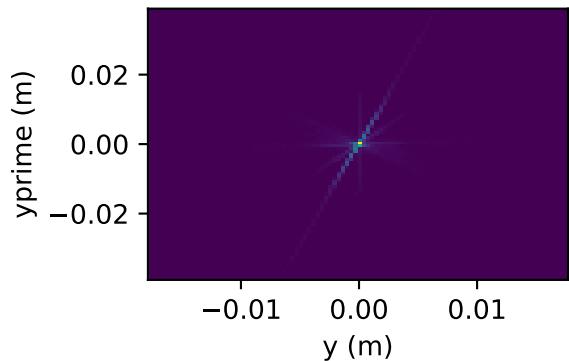
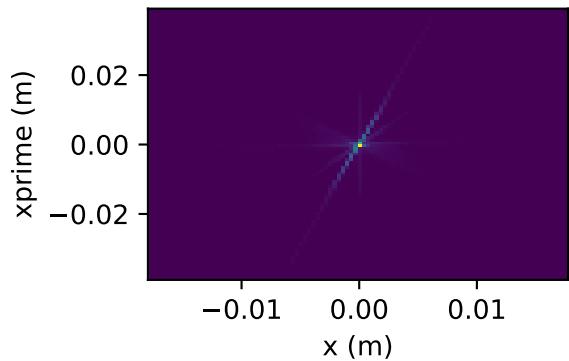
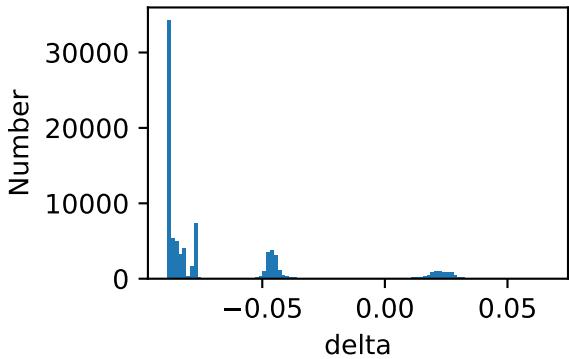
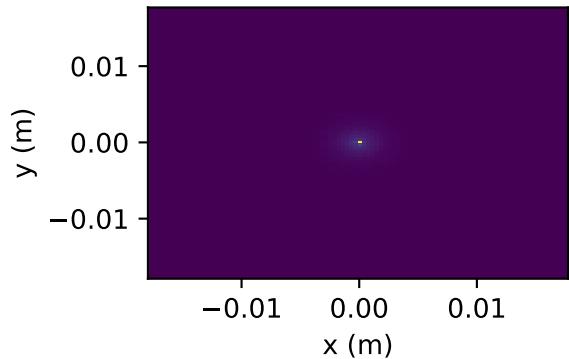
LhARA:1:Matching:Drift:1



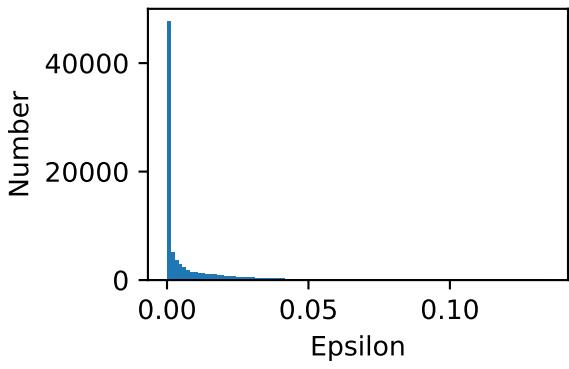
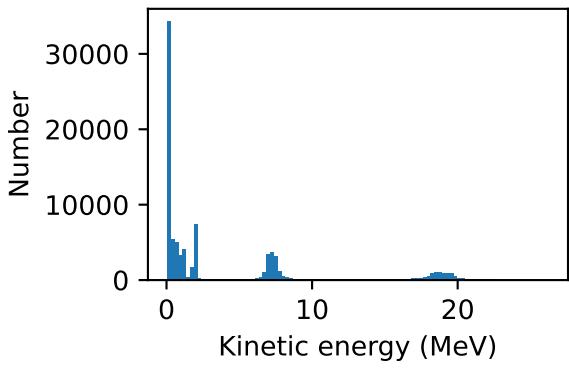
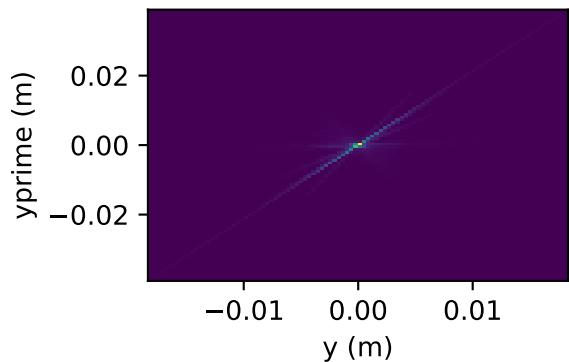
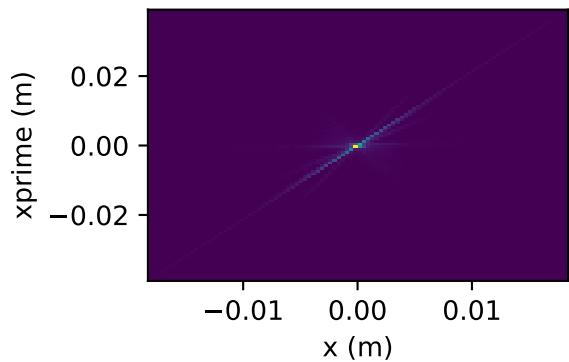
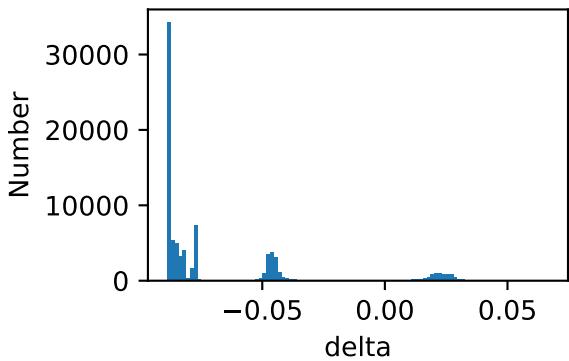
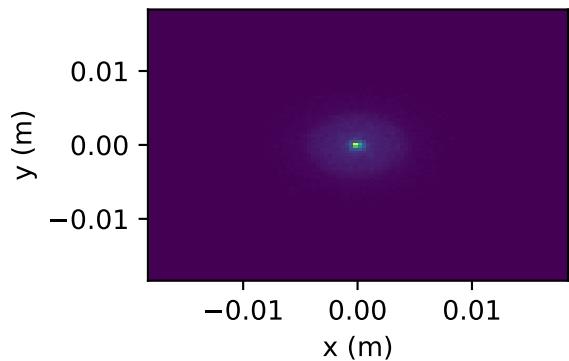
LhARA:1:Matching:Gabor lens:1



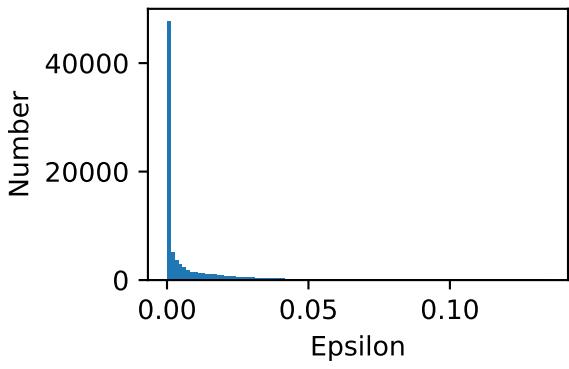
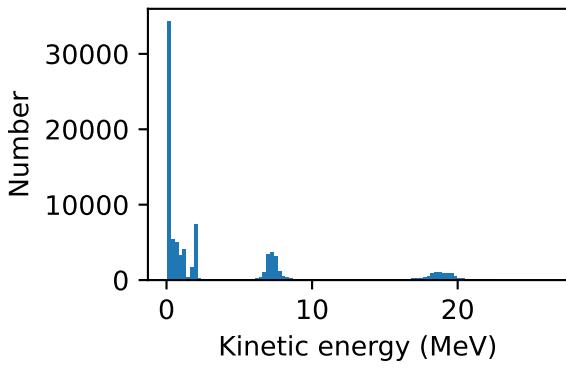
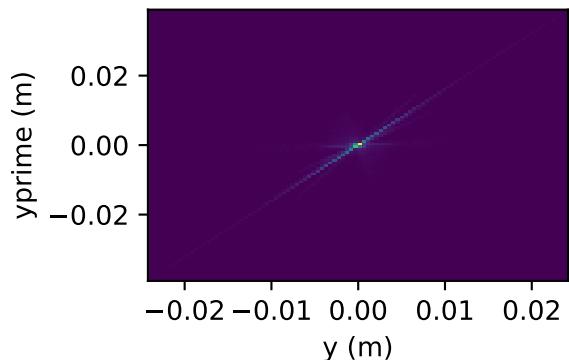
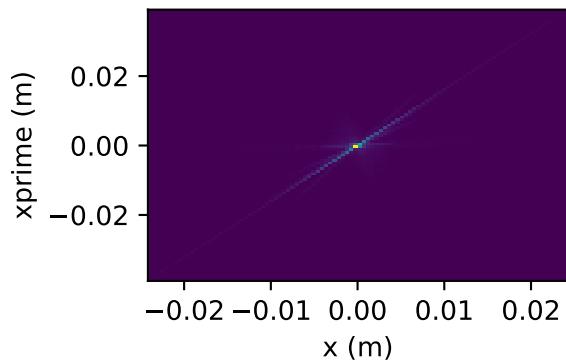
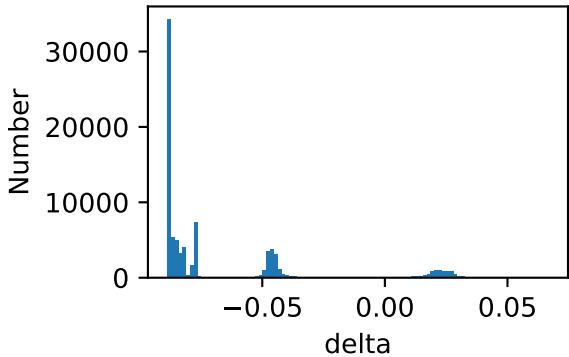
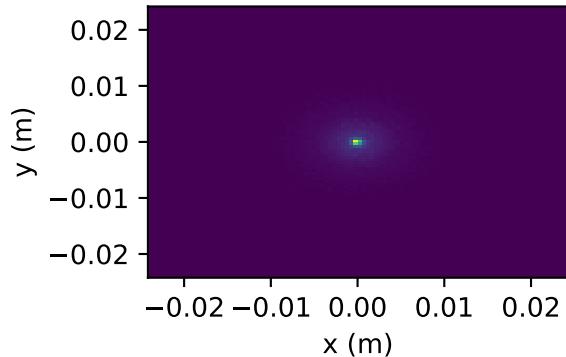
LhARA:1:Matching:Drift:2



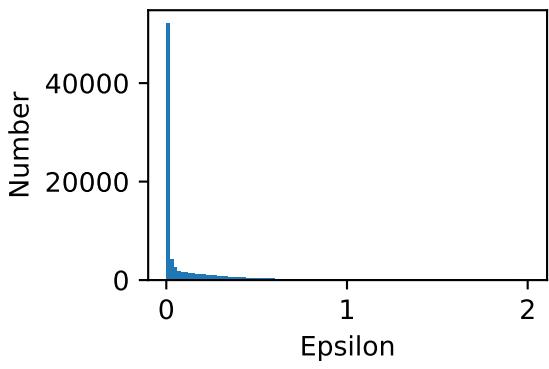
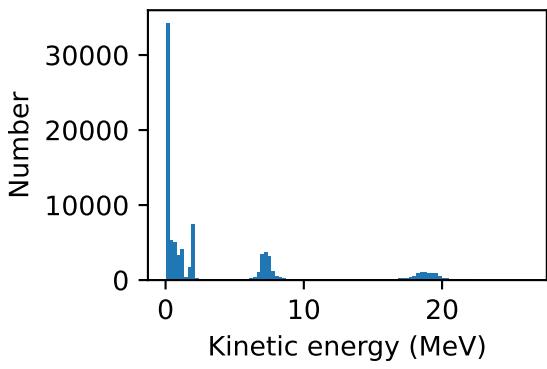
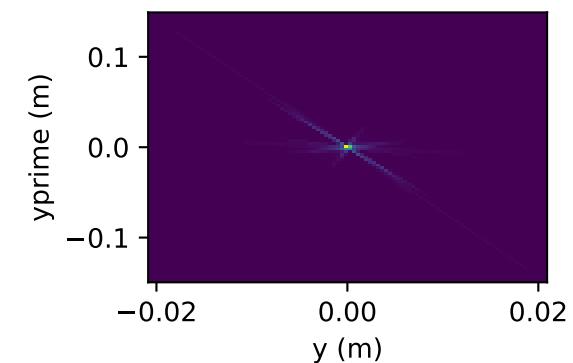
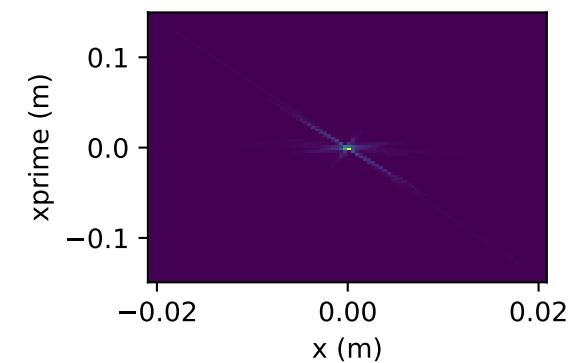
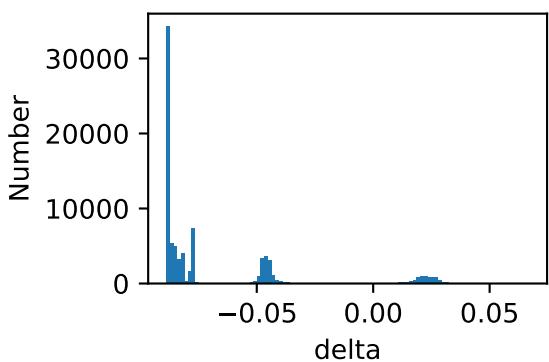
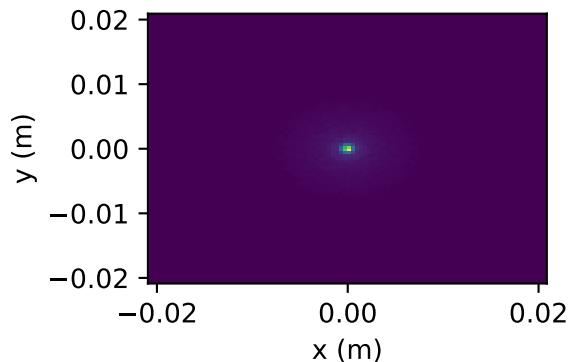
LhARA:1:Matching:Drift:3



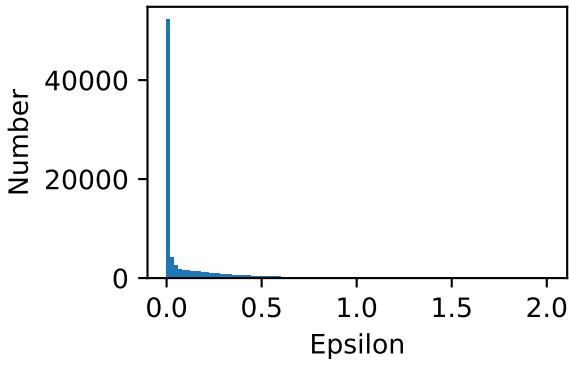
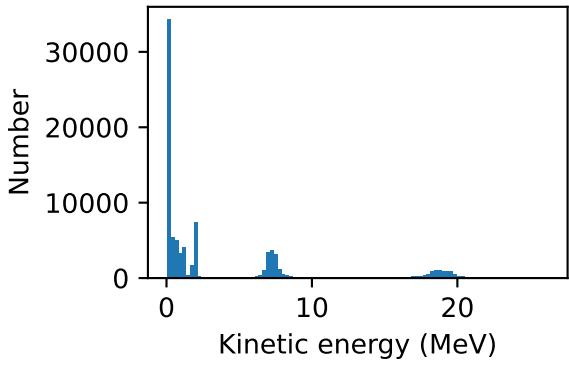
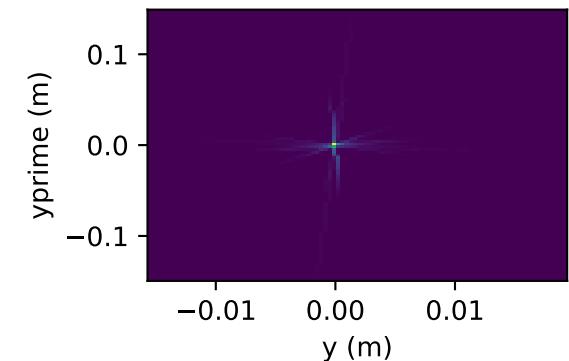
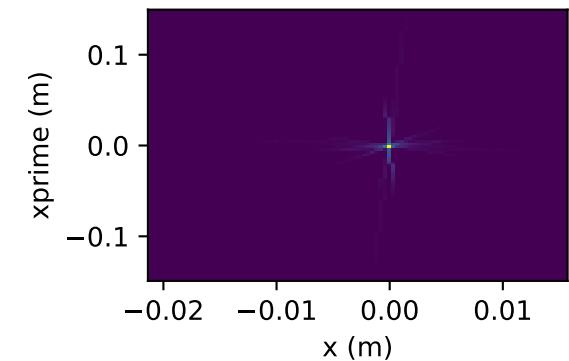
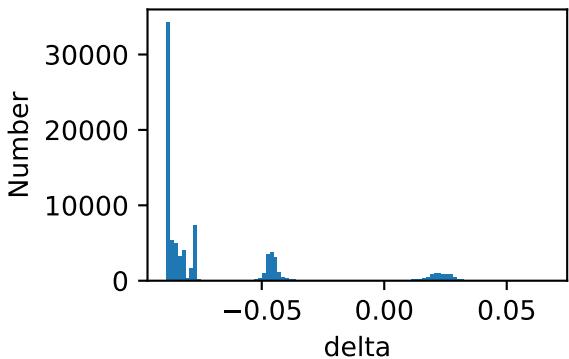
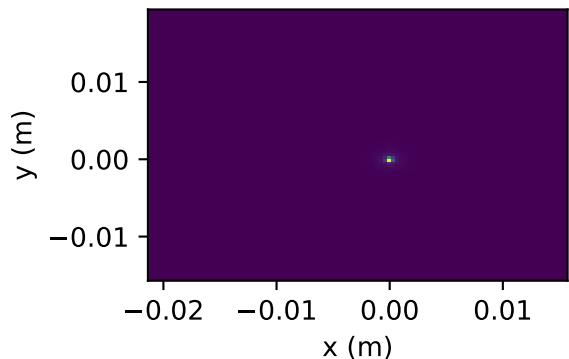
LhARA:1:Matching:Drift:4



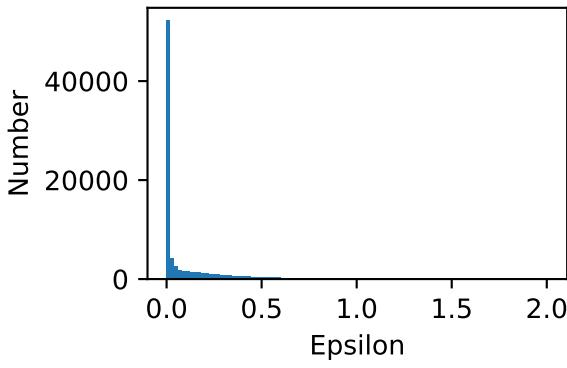
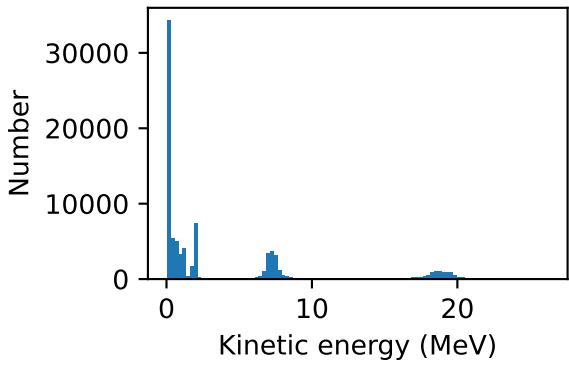
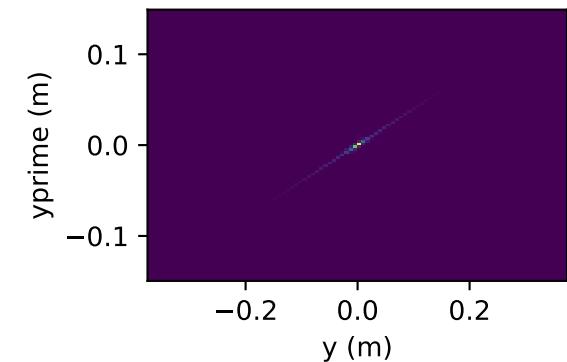
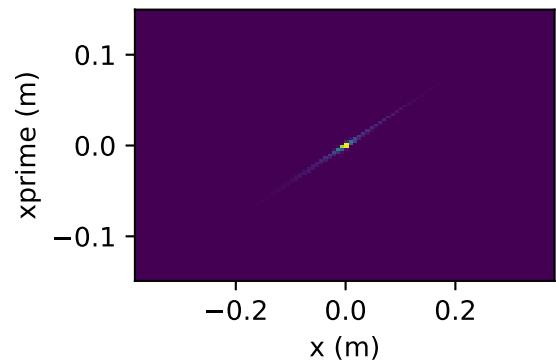
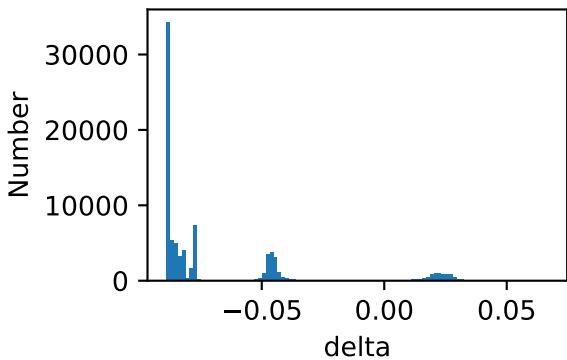
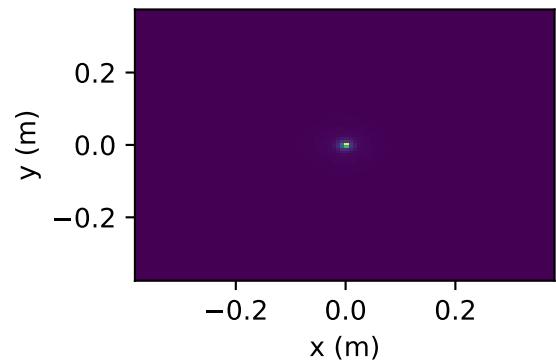
LhARA:1:Matching:Gabor lens:2



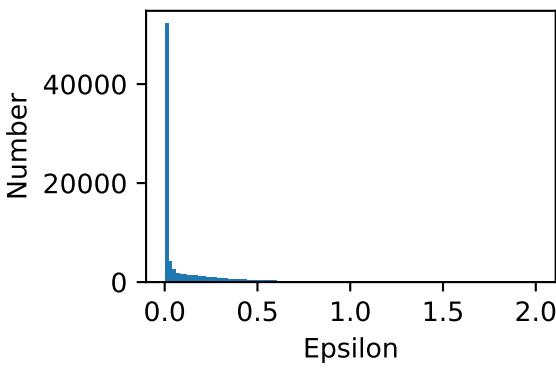
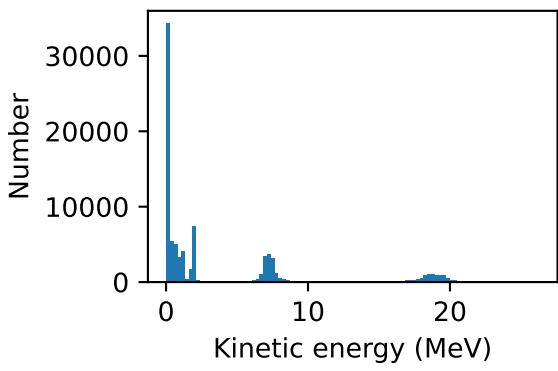
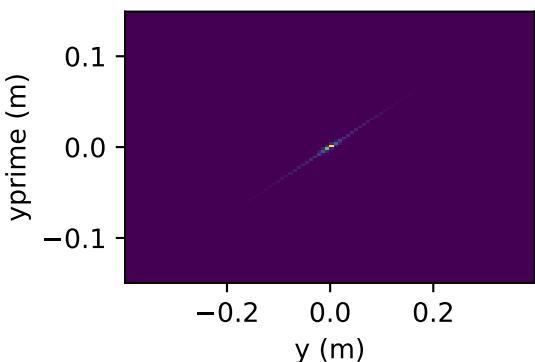
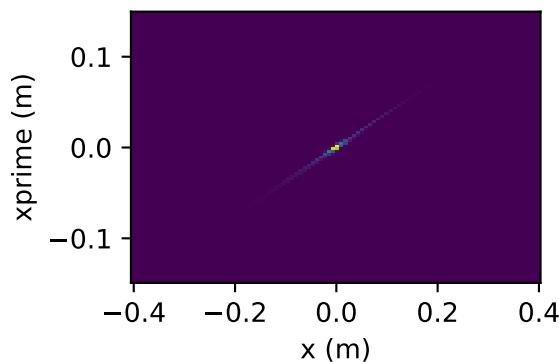
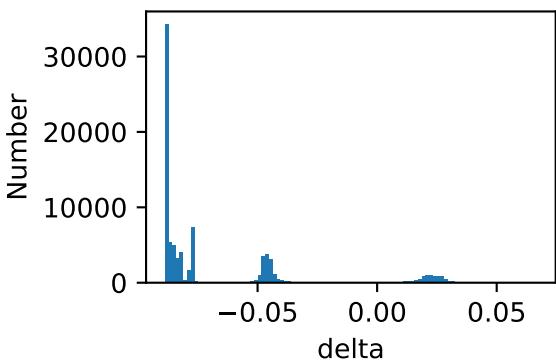
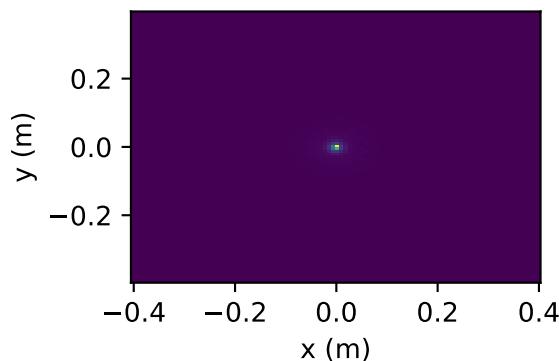
LhARA:1:Matching:Drift:5



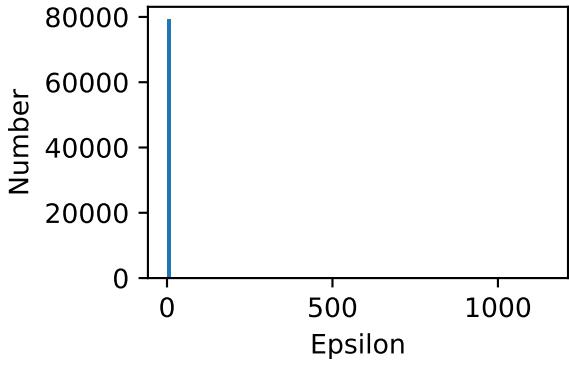
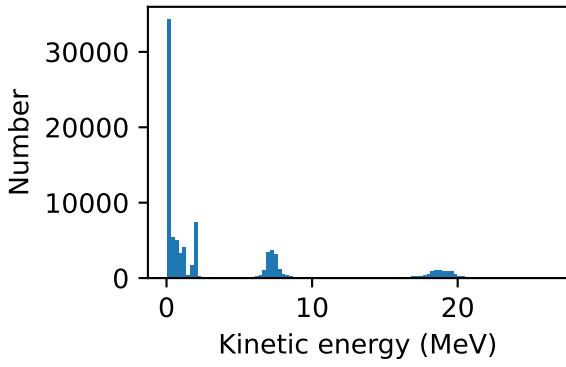
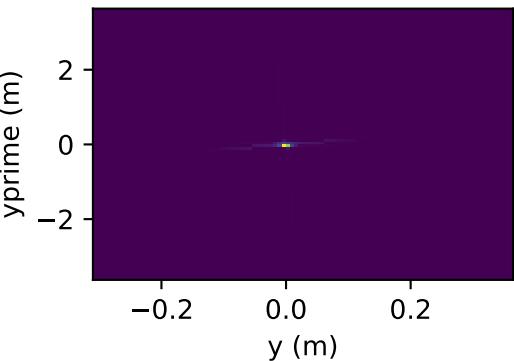
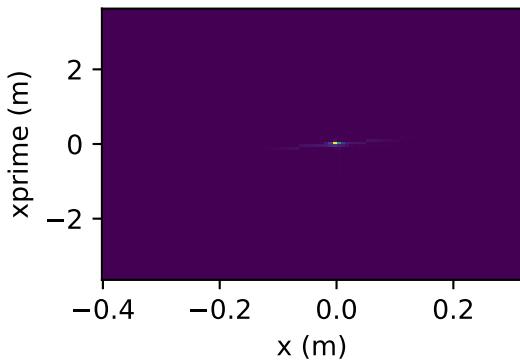
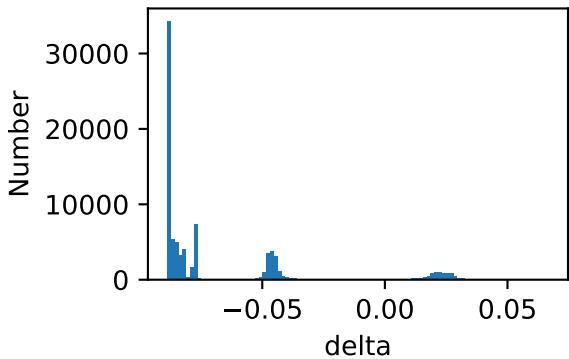
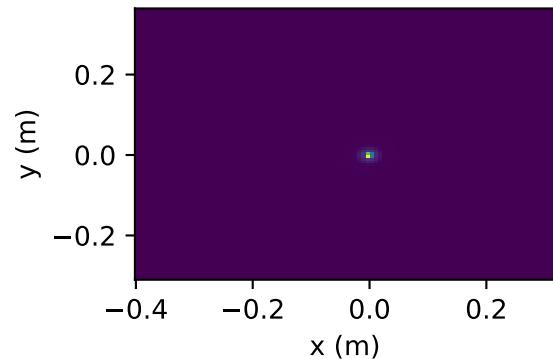
LhARA:1:Matching:Drift:6



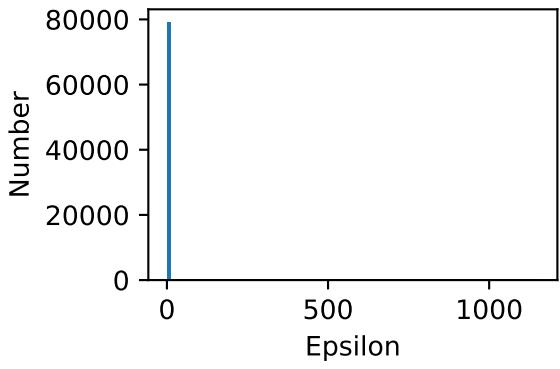
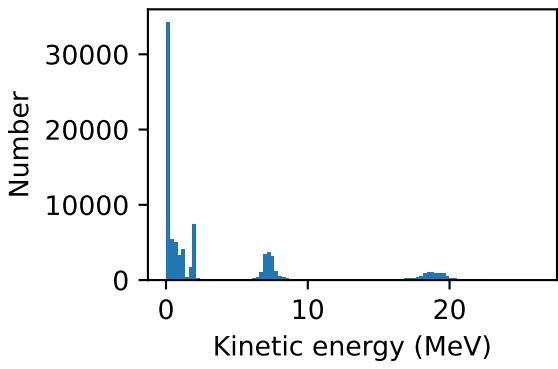
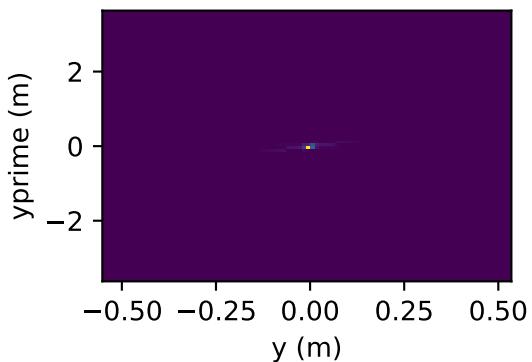
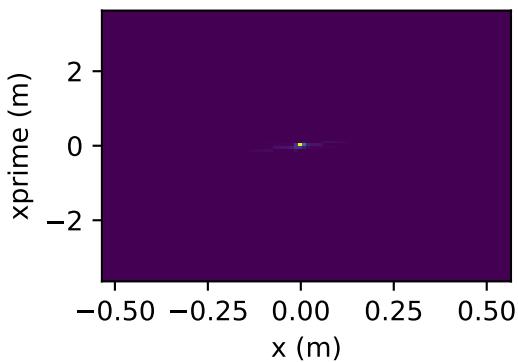
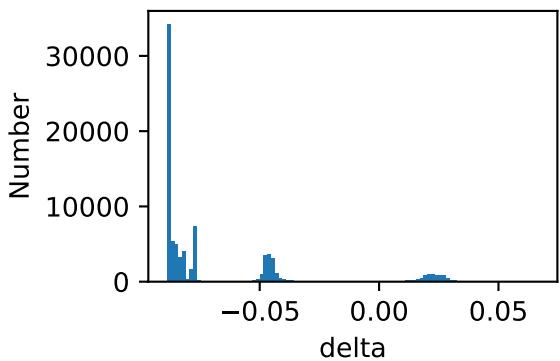
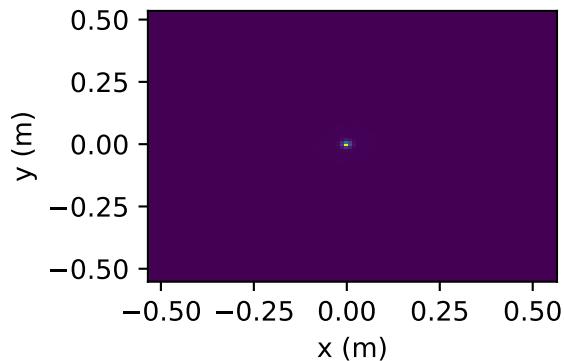
LhARA:1:Matching:Drift:7



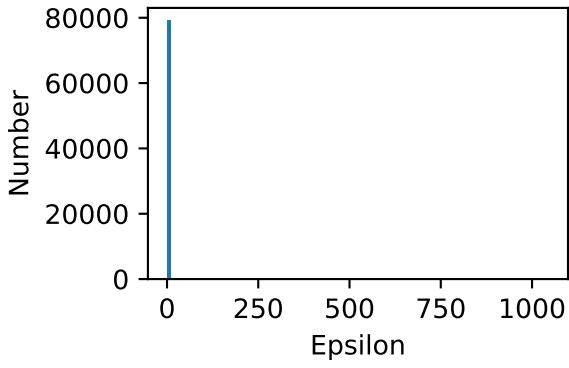
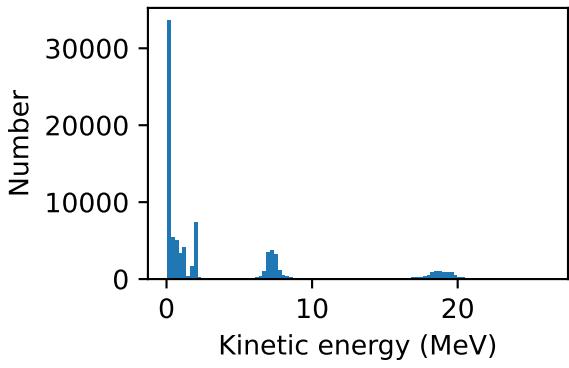
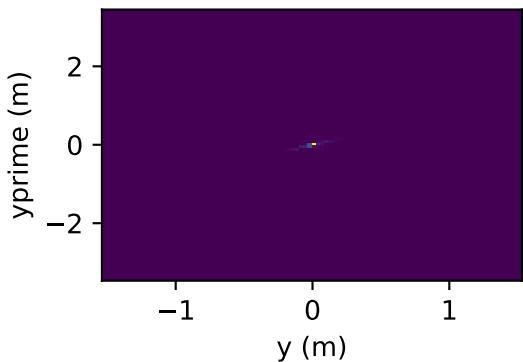
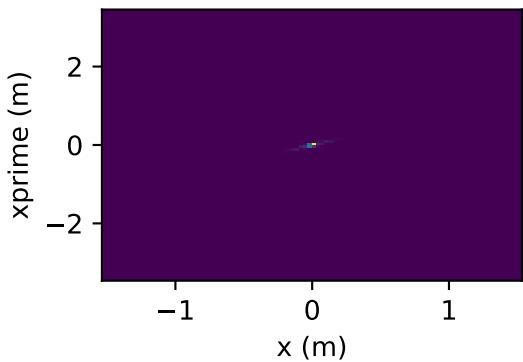
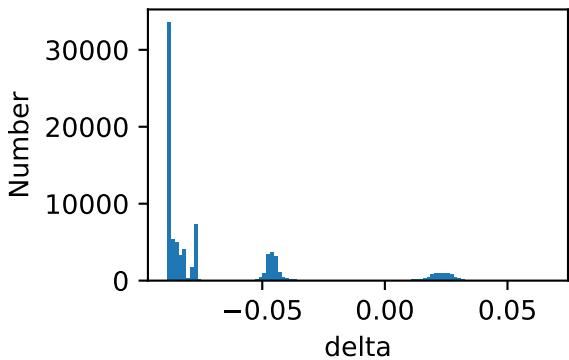
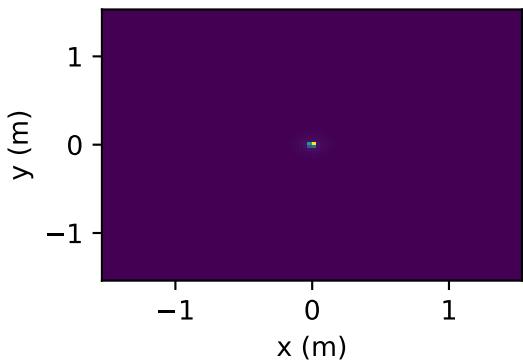
LhARA:1:Matching:Gabor lens:3



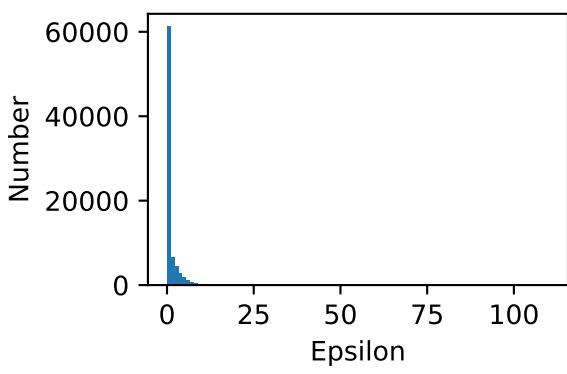
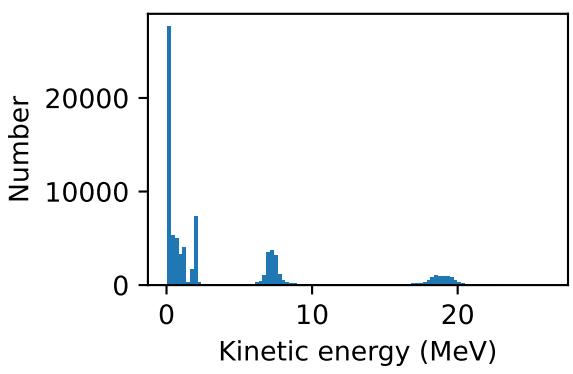
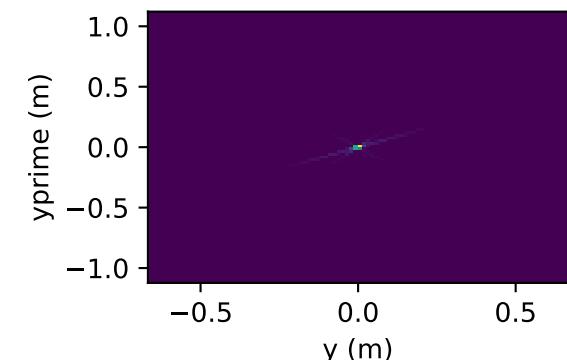
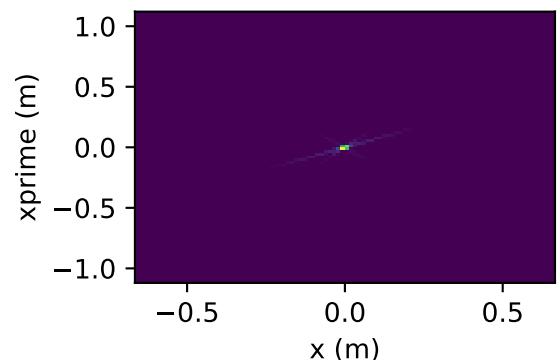
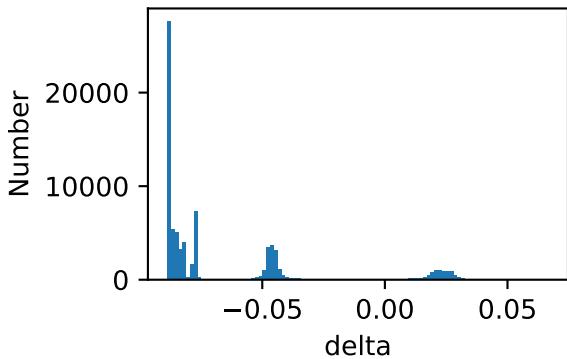
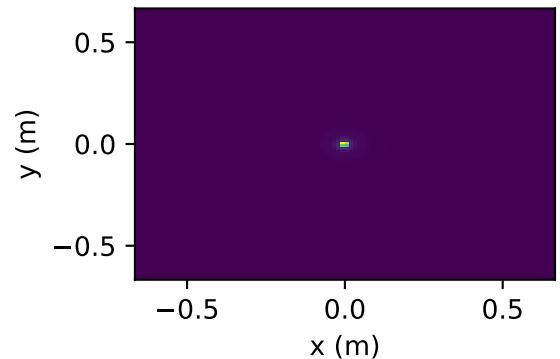
LhARA:1:Matching:Drift:8



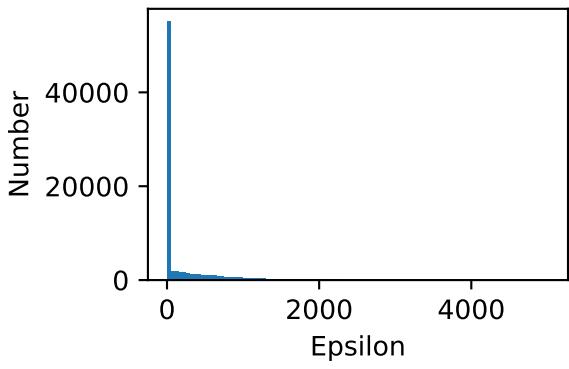
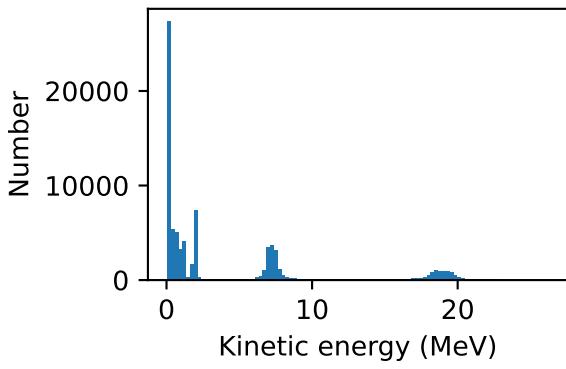
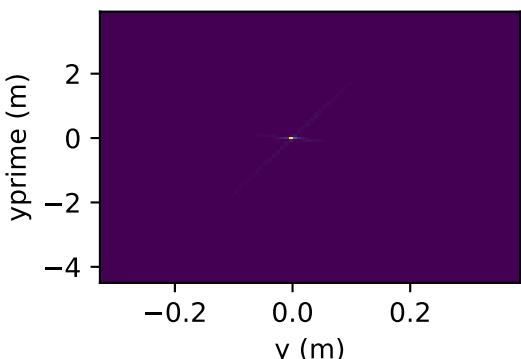
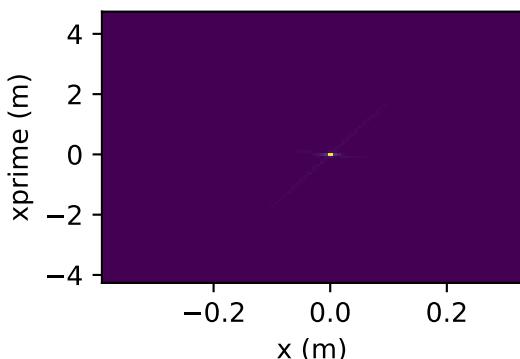
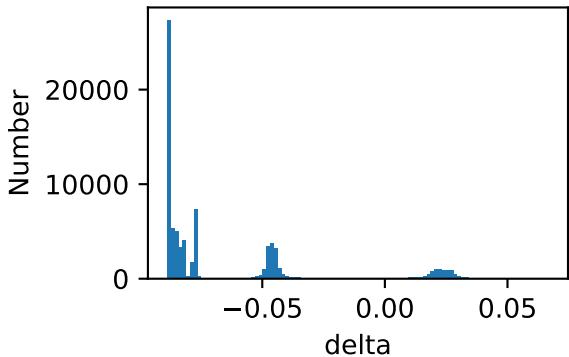
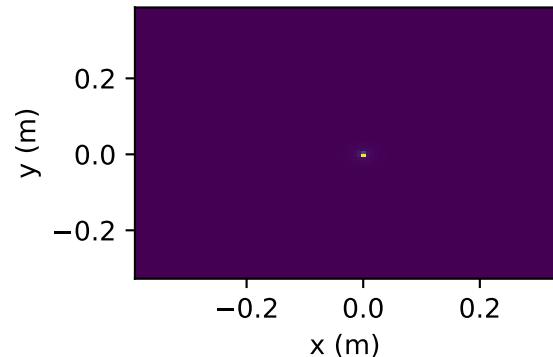
LhARA:1:Matching:Drift:9



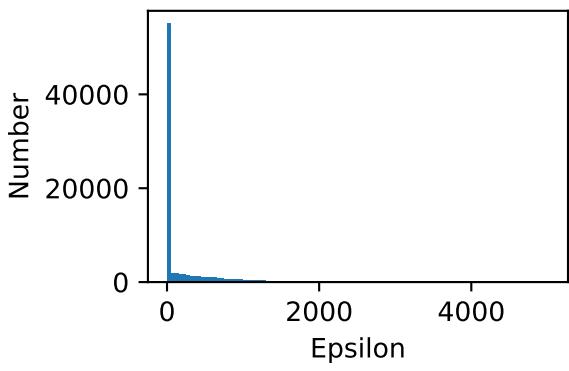
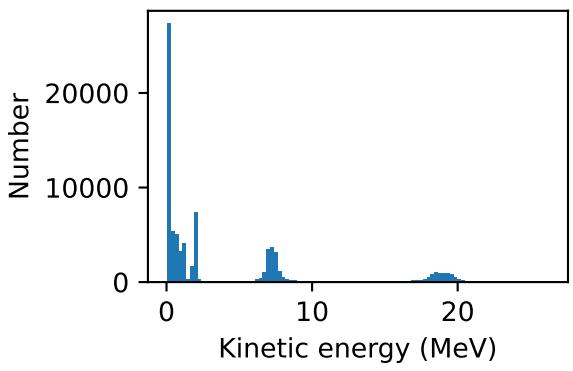
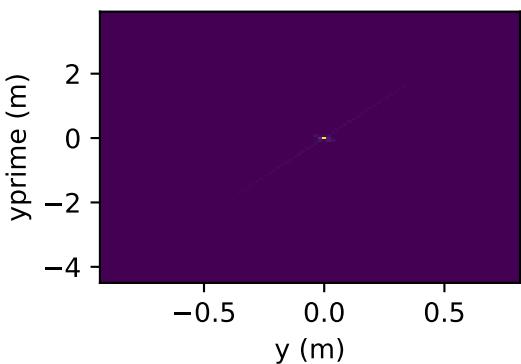
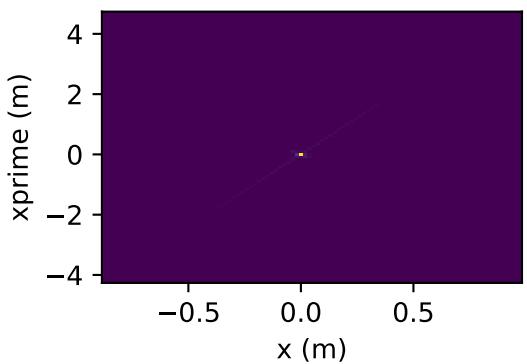
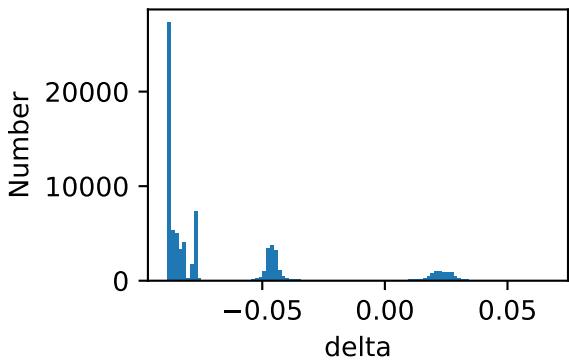
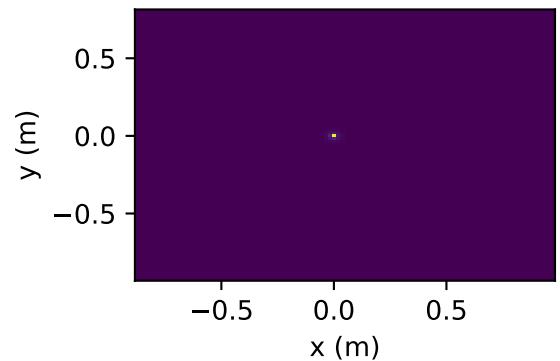
LhARA:1:Matching:Drift:10



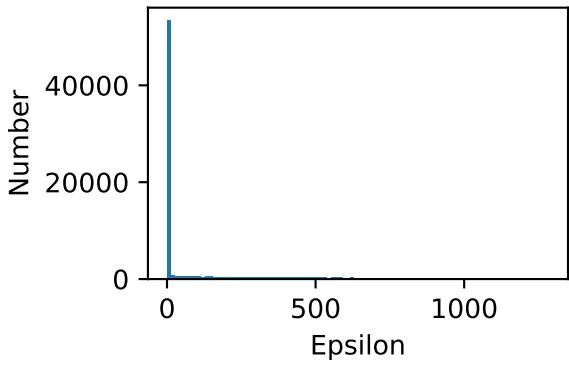
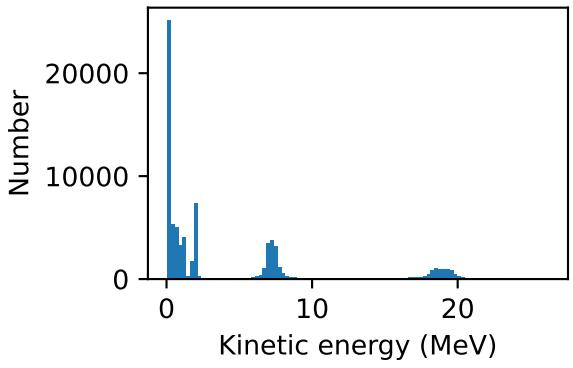
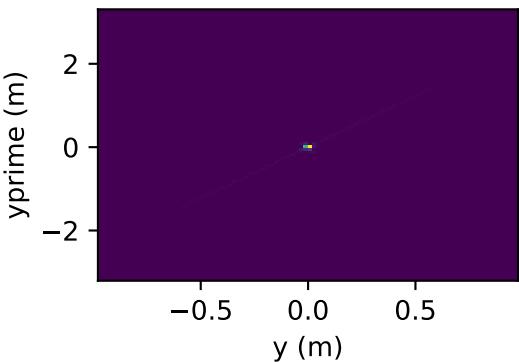
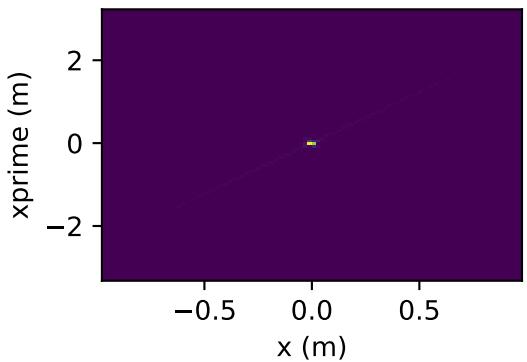
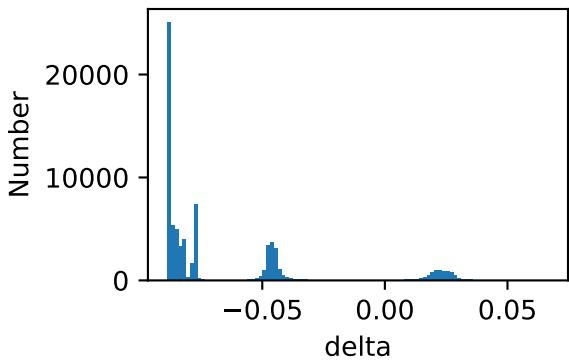
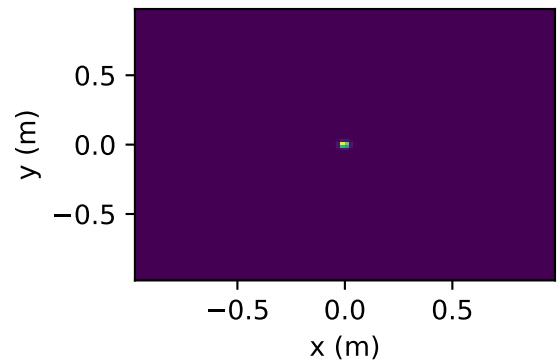
LhARA:1:Matching:Gabor lens:4



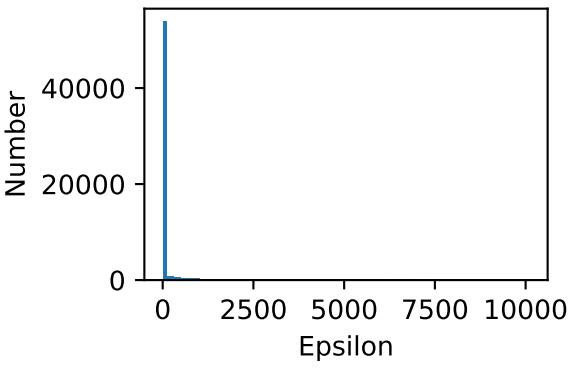
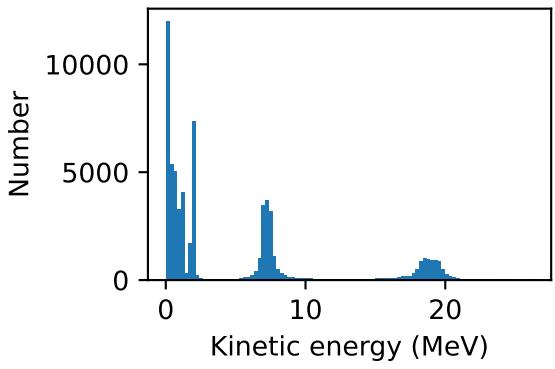
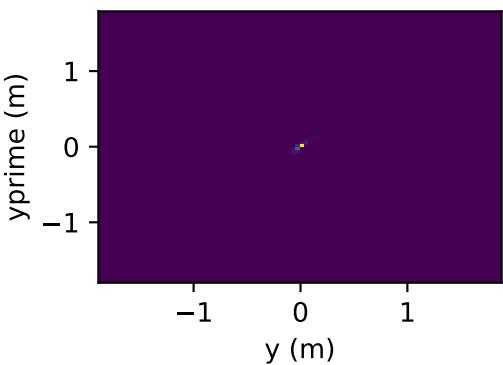
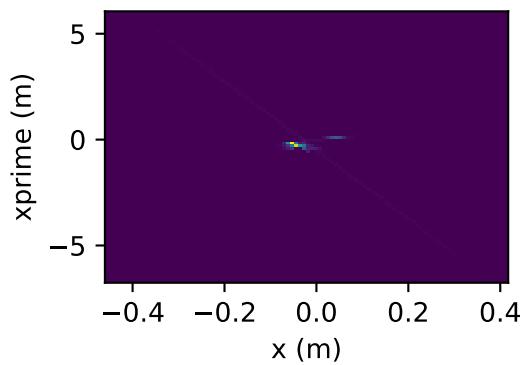
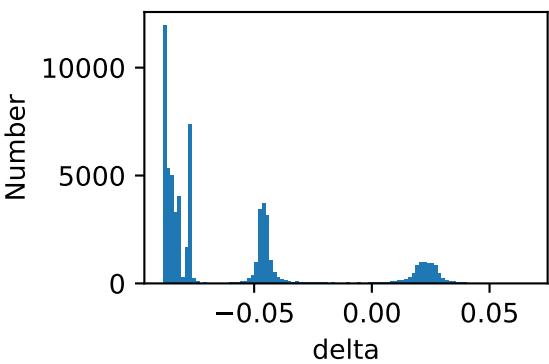
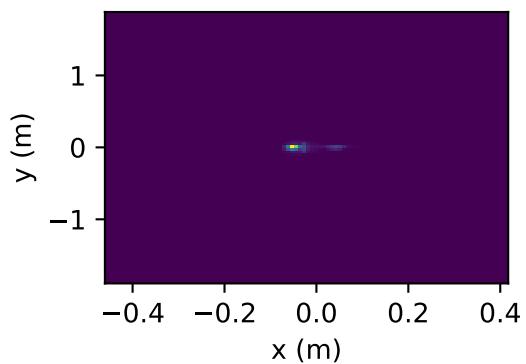
LhARA:1:Matching:Drift:11



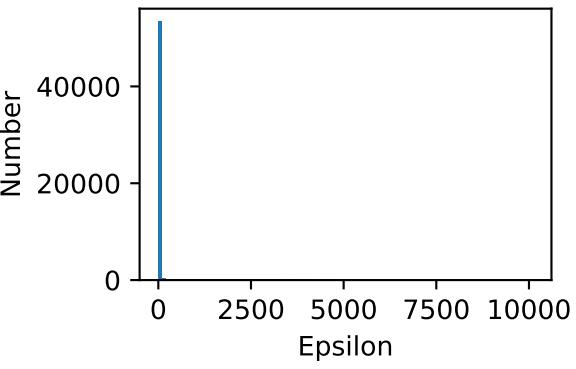
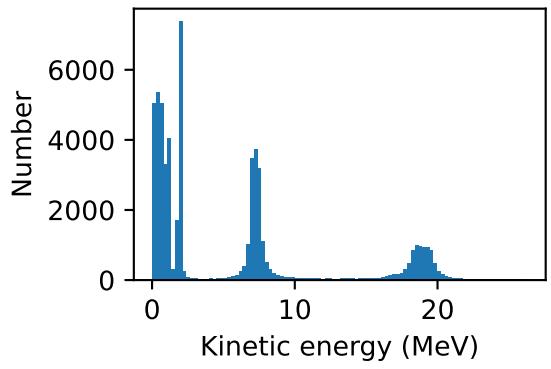
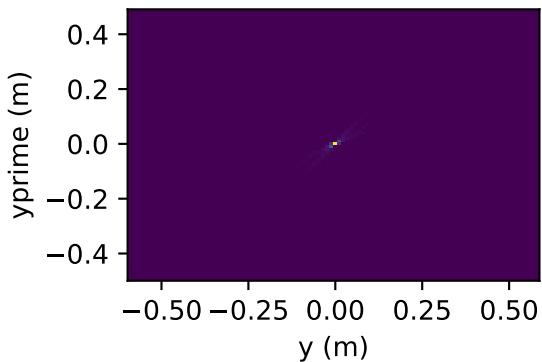
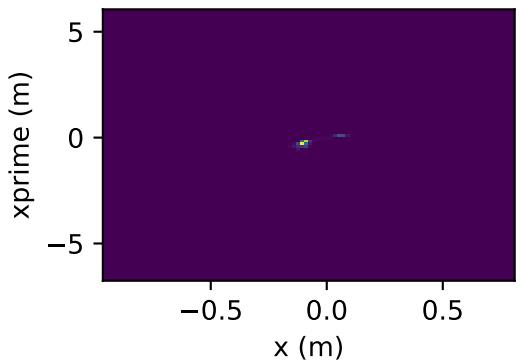
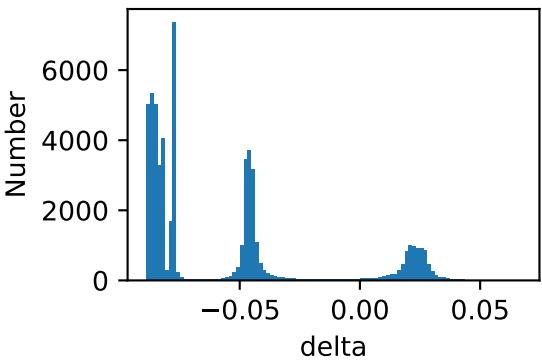
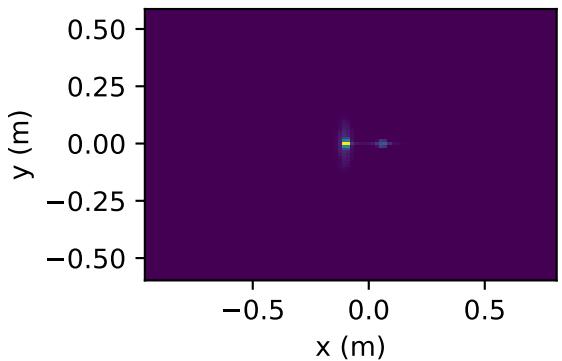
LhARA:1:Arc:Drift:1



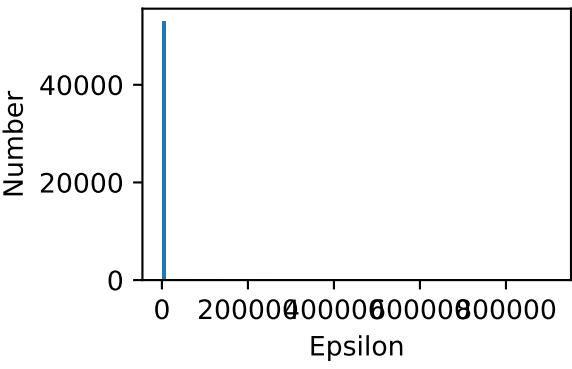
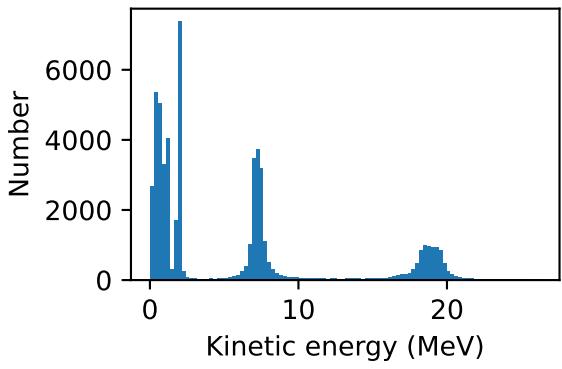
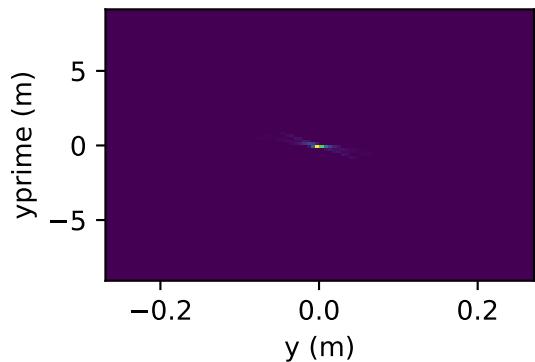
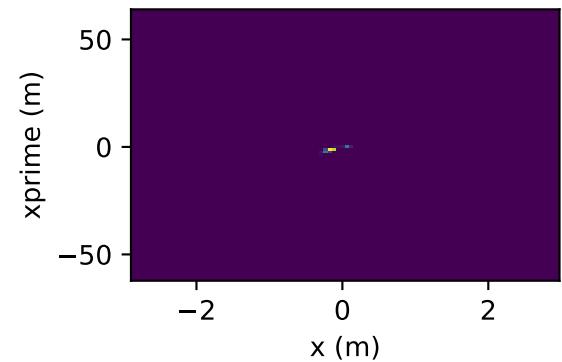
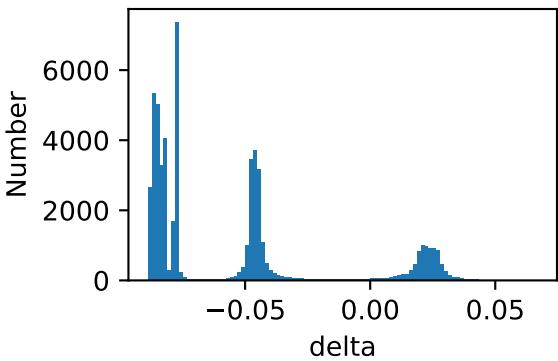
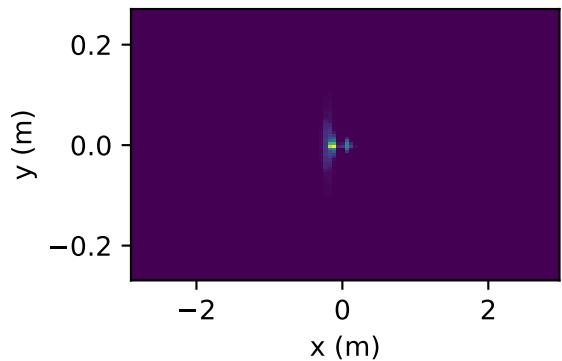
LhARA:1:Arc:Dipole:1



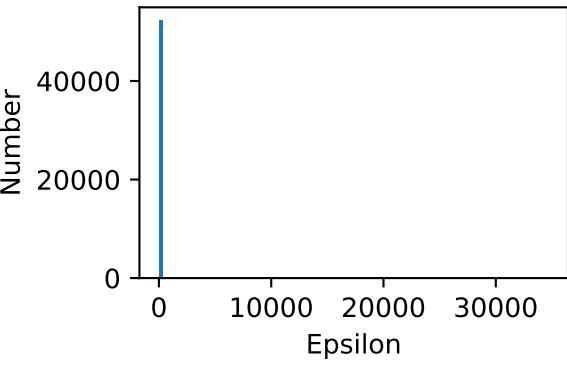
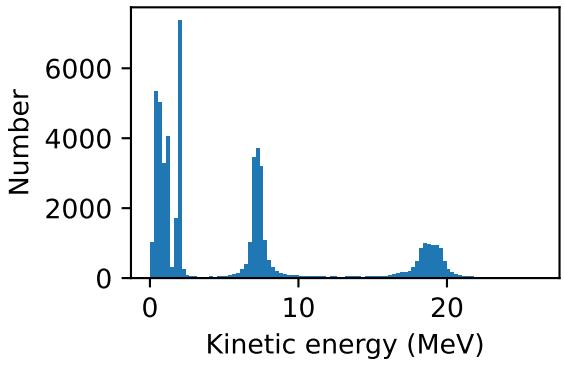
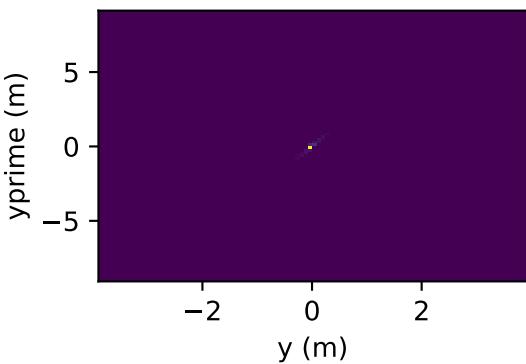
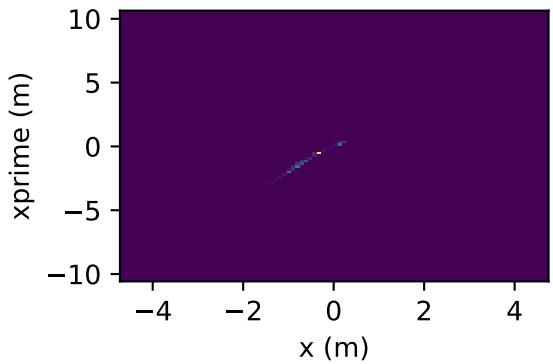
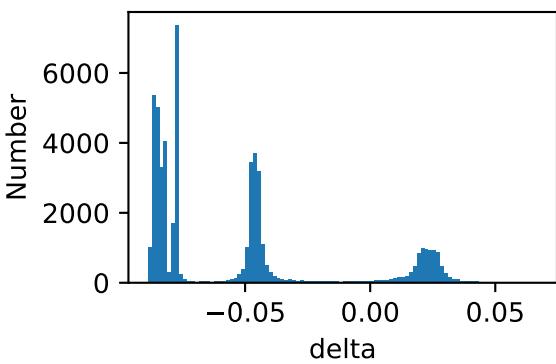
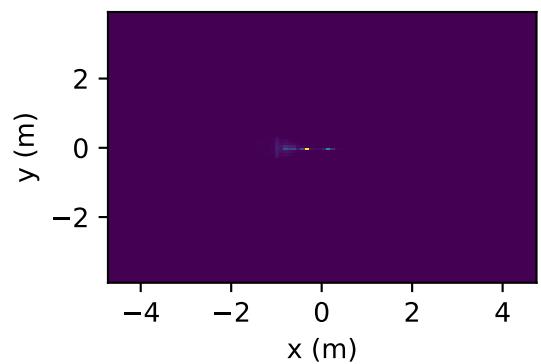
LhARA:1:Arc:Drift:2



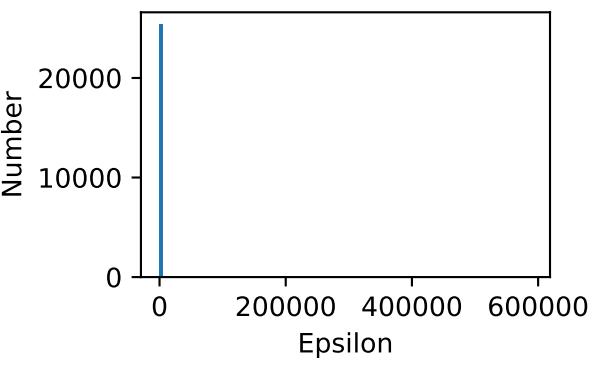
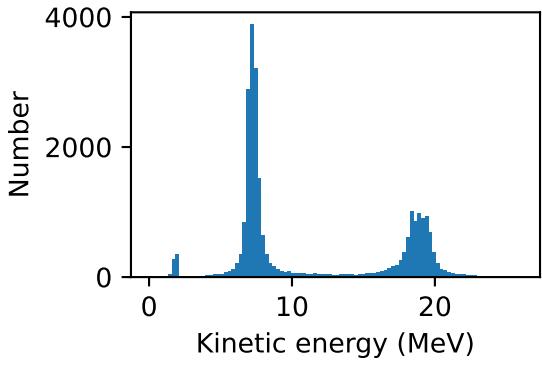
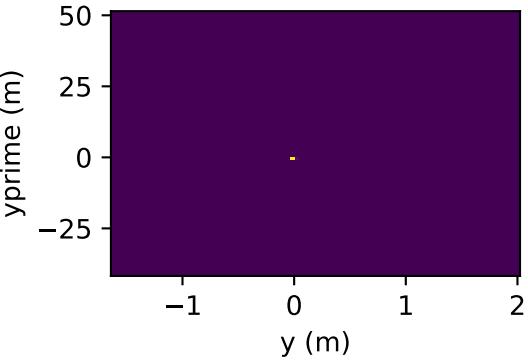
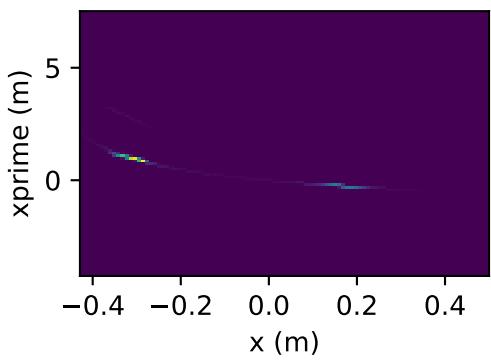
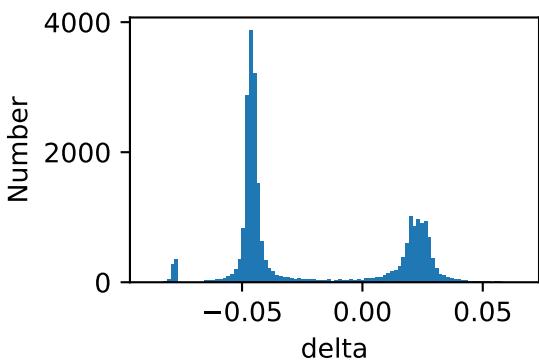
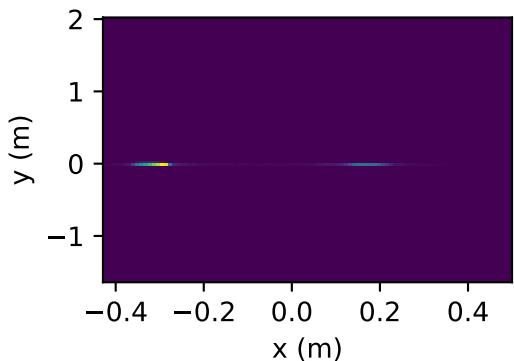
LhARA:1:Arc:Dquad:1



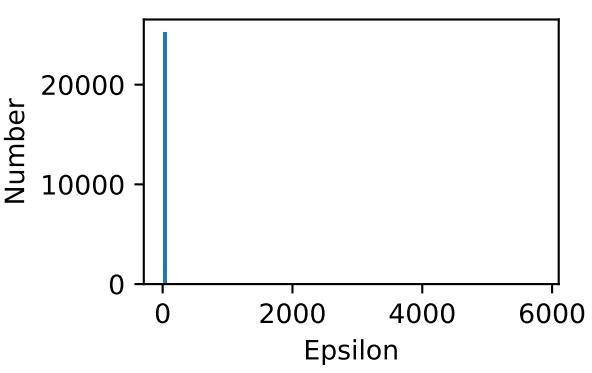
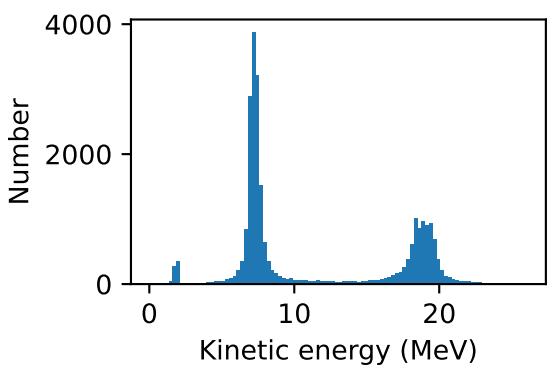
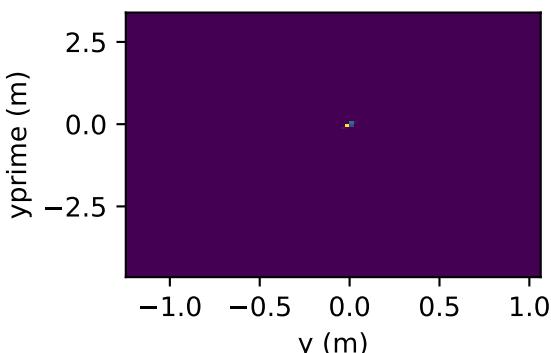
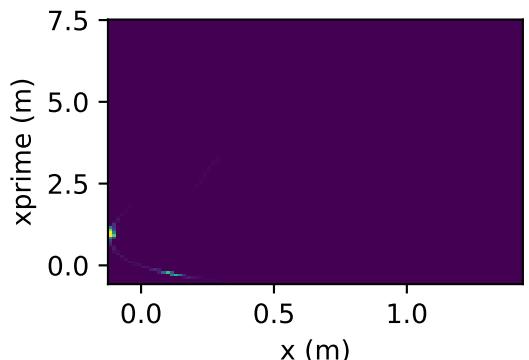
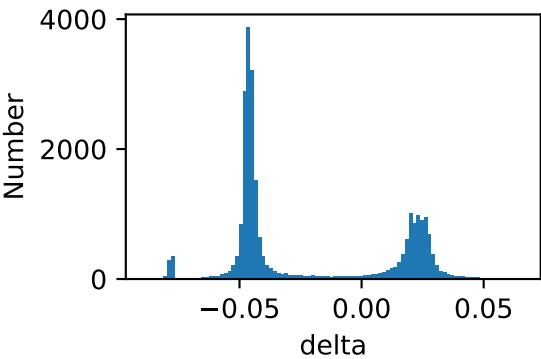
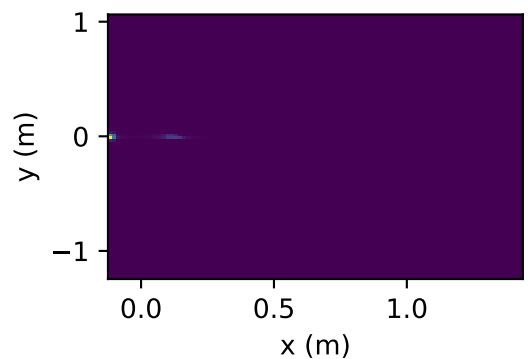
LhARA:1:Arc:Drift:3



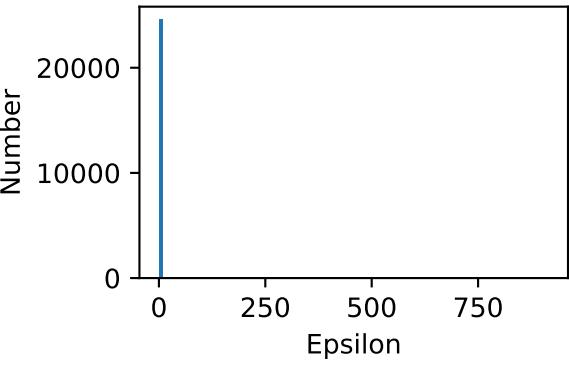
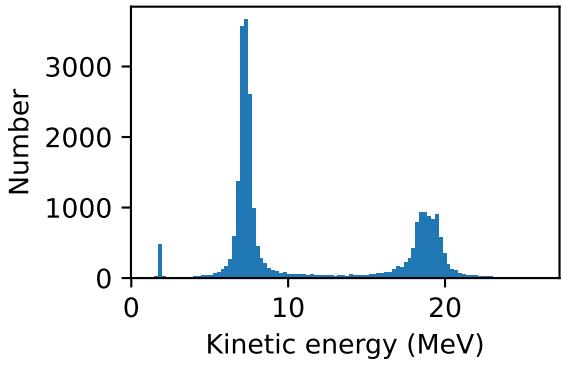
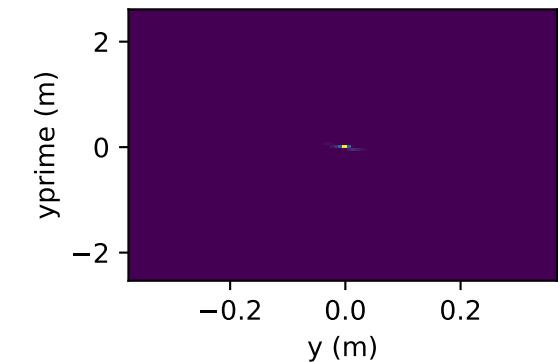
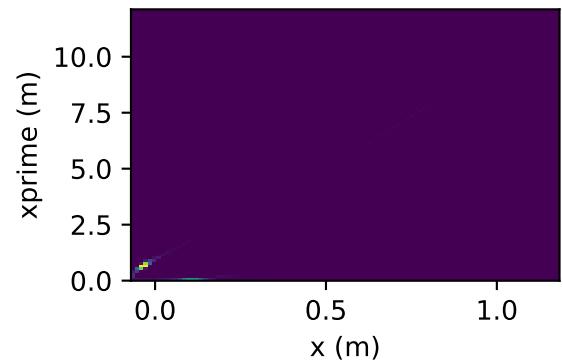
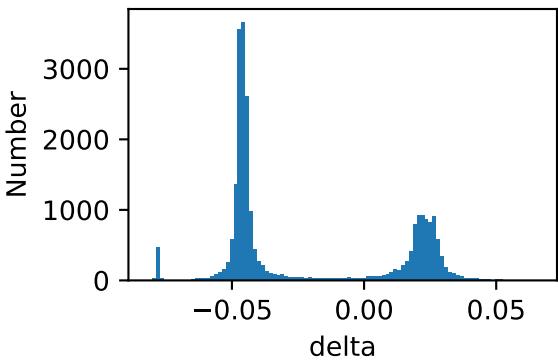
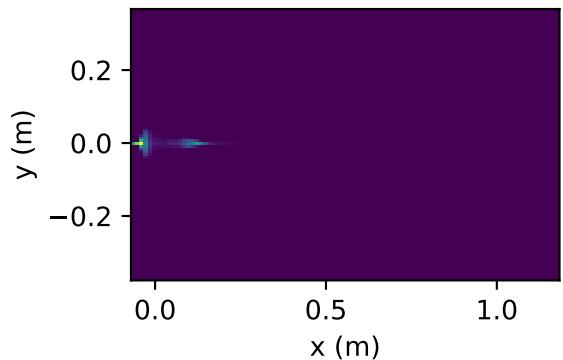
LhARA:1:Arc:Fquad:1



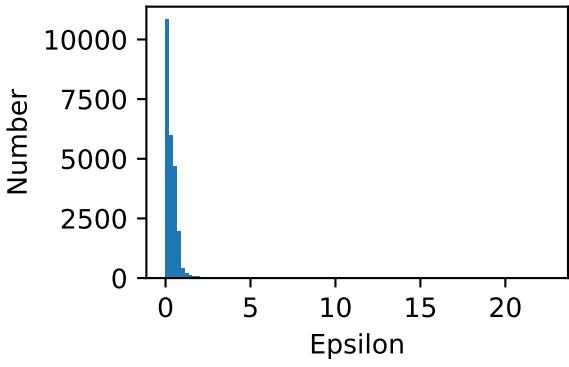
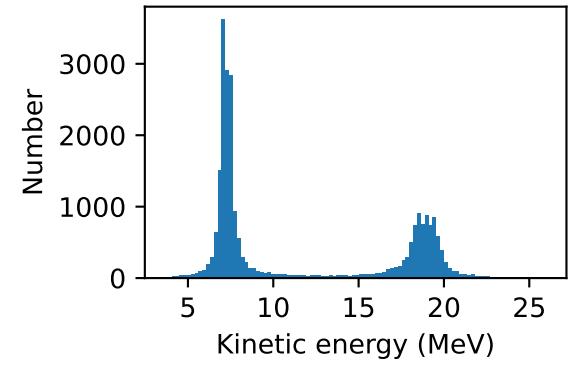
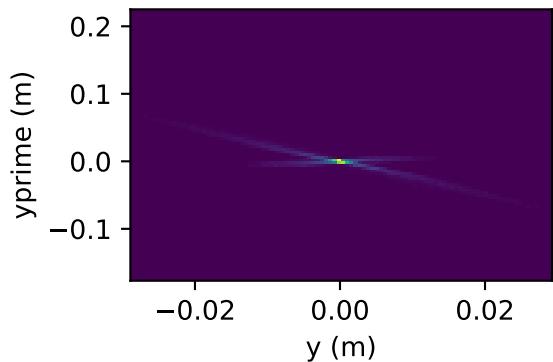
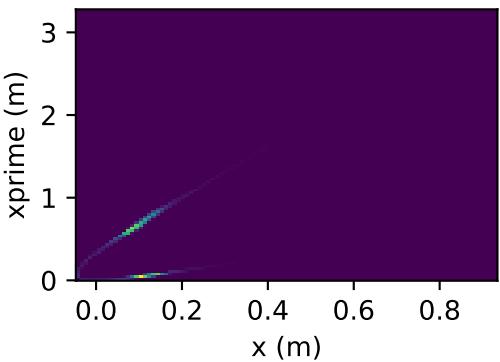
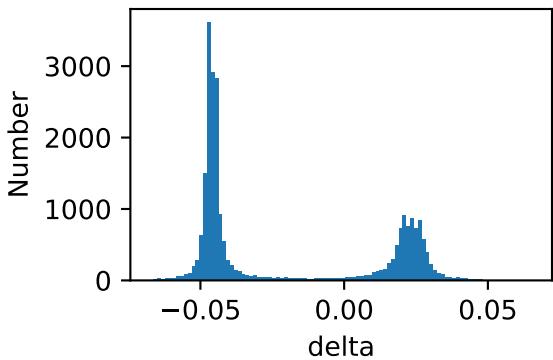
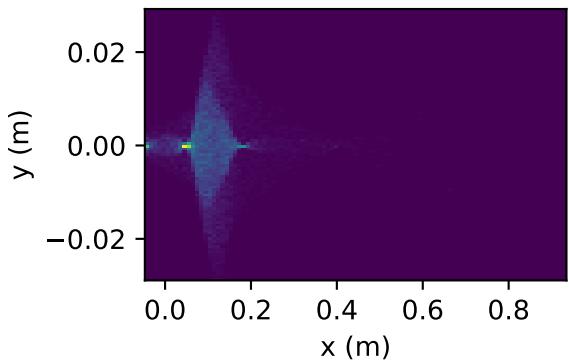
LhARA:1:Arc:Drift:4



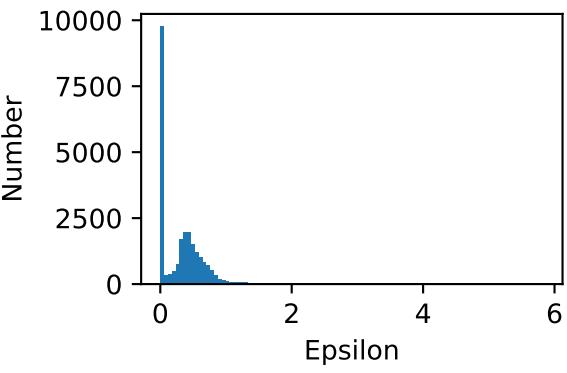
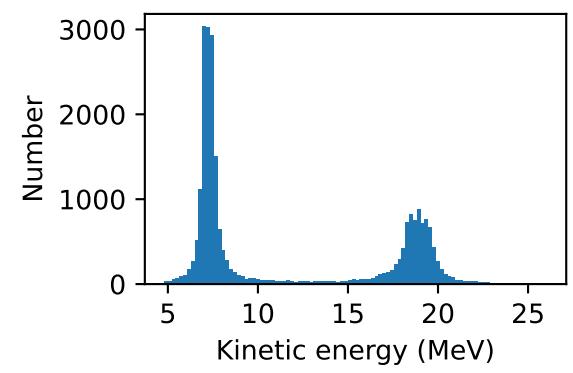
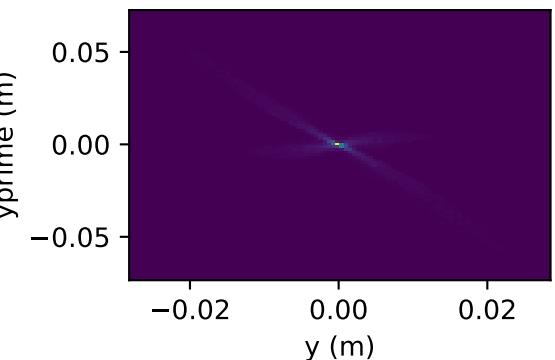
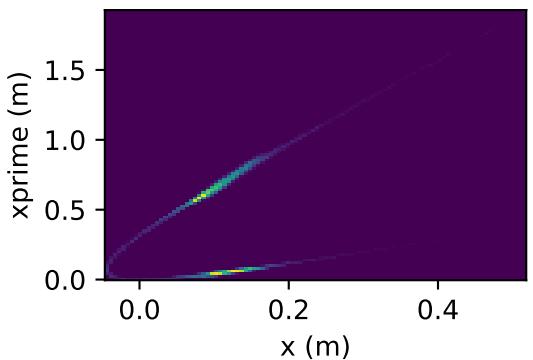
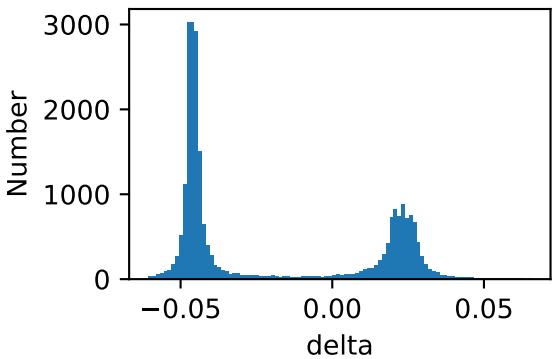
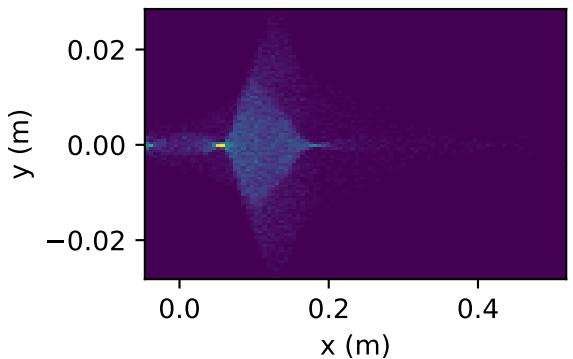
LhARA:1:Arc:Dquad:2



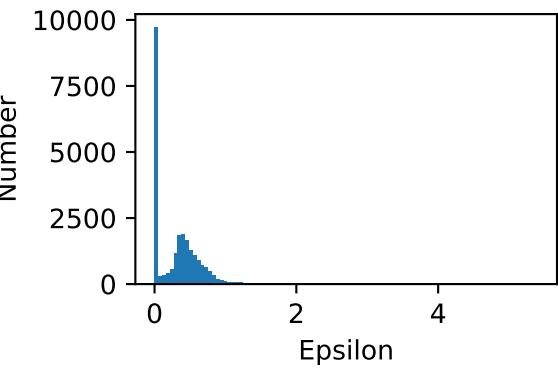
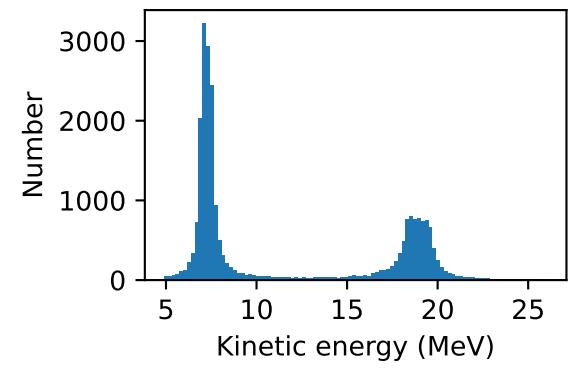
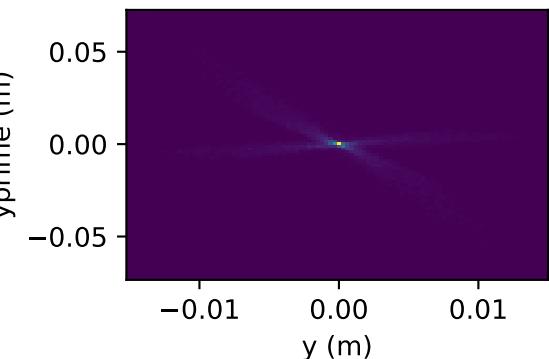
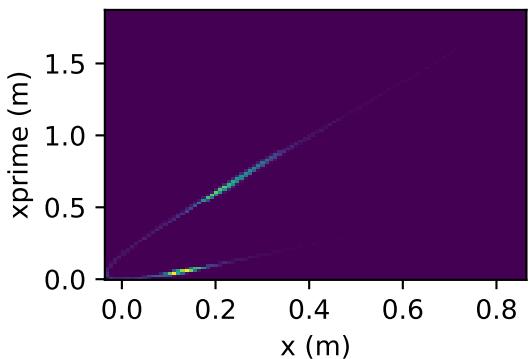
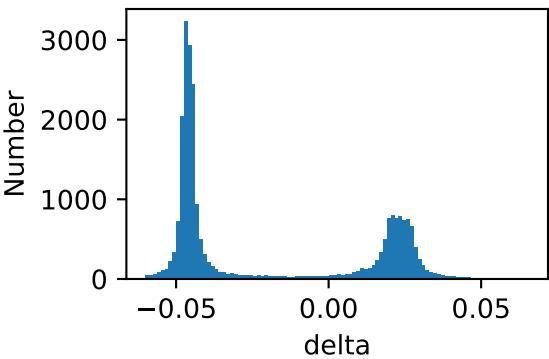
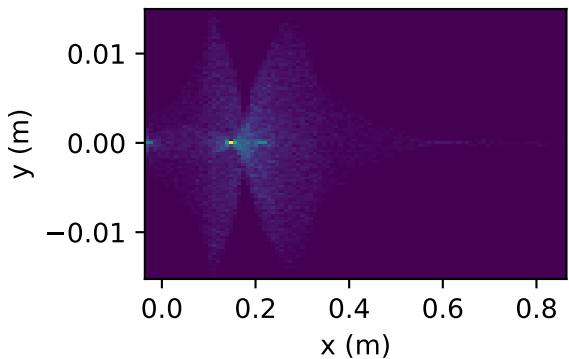
LhARA:1:Arc:Drift:5



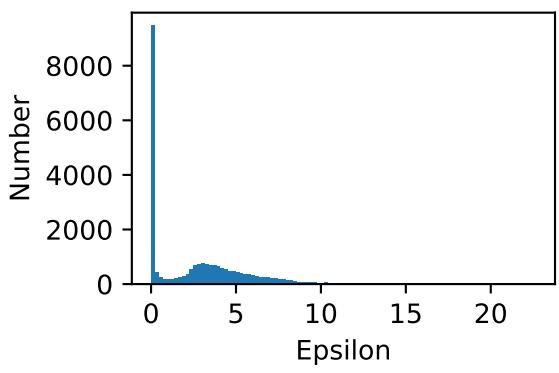
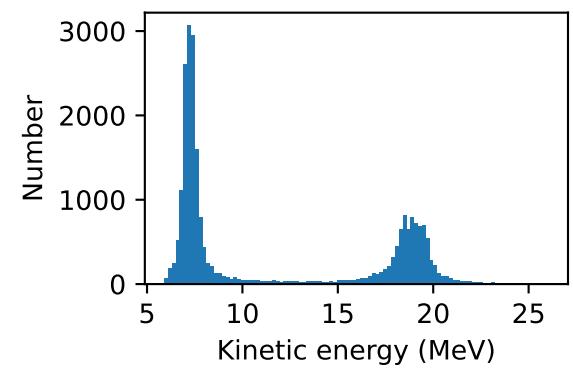
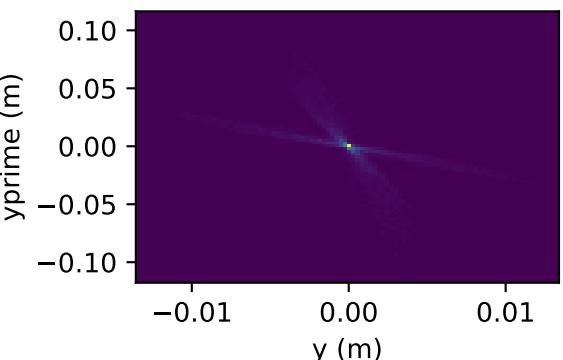
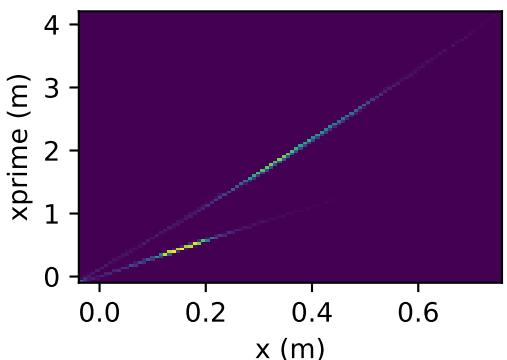
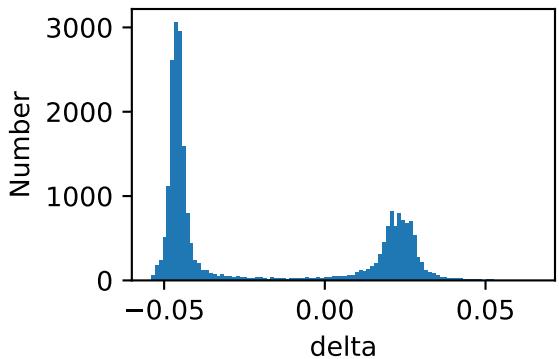
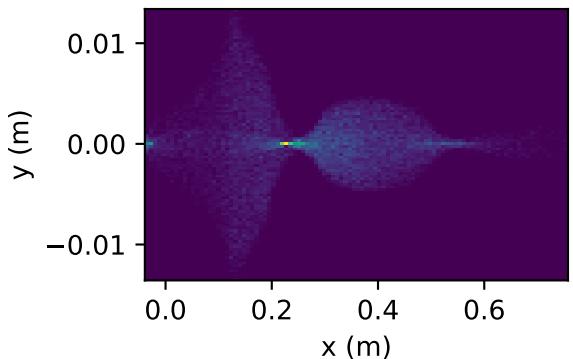
LhARA:1:Arc:Drift:6



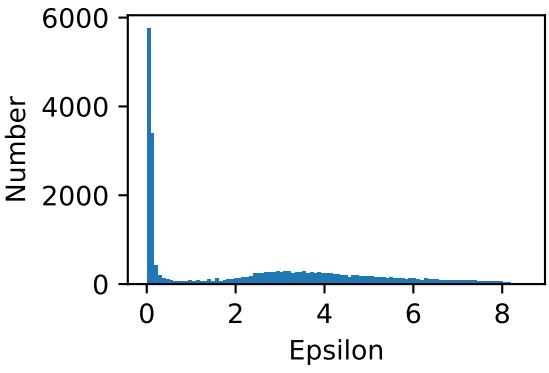
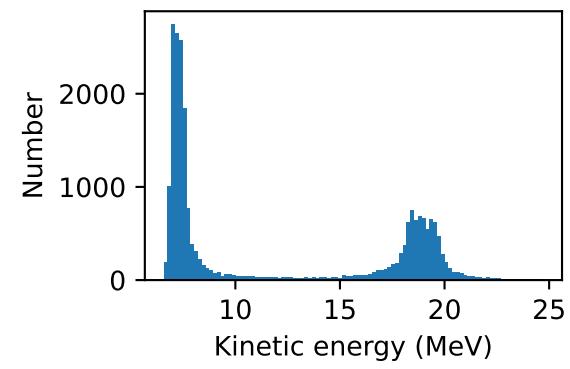
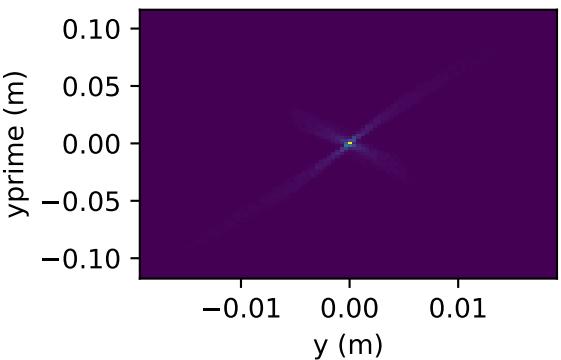
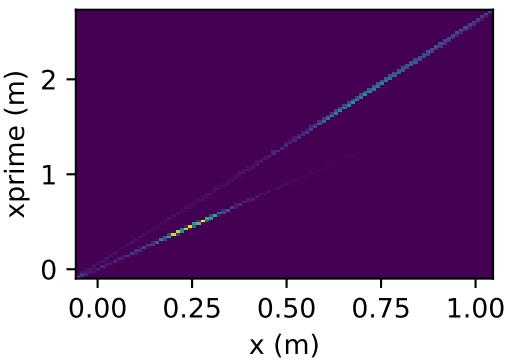
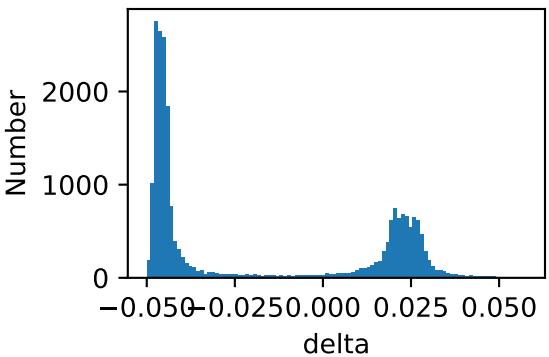
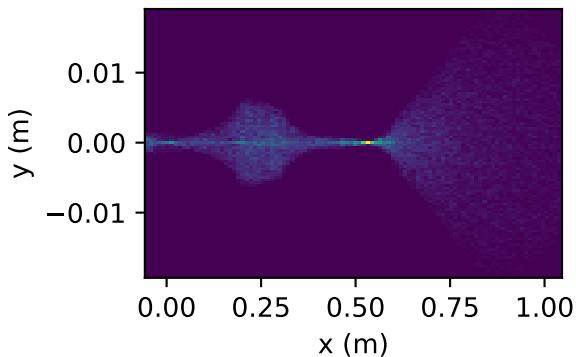
LhARA:1:Arc:Drift:7



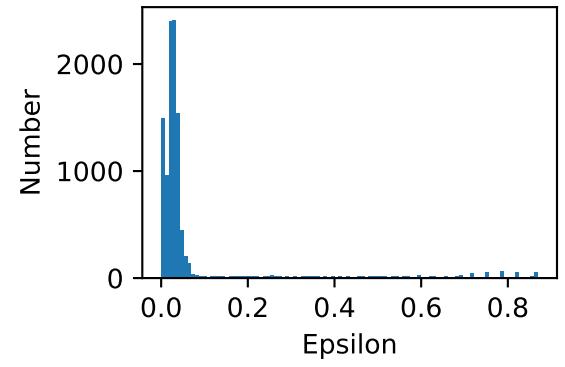
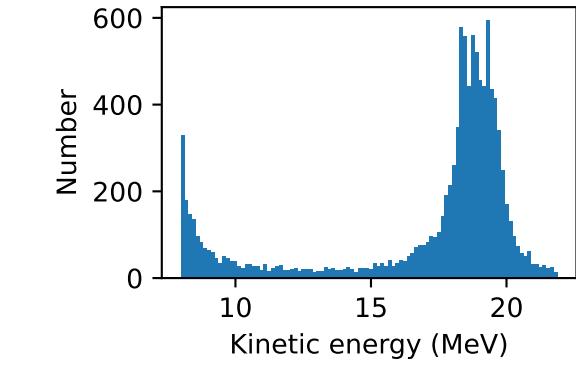
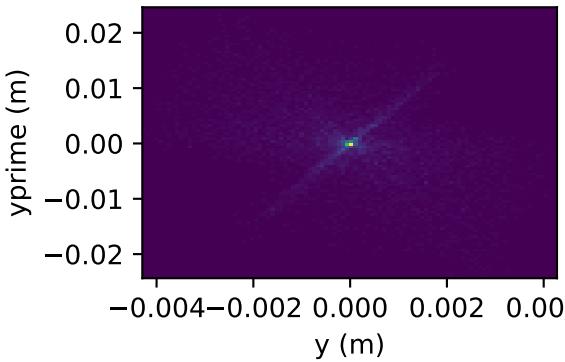
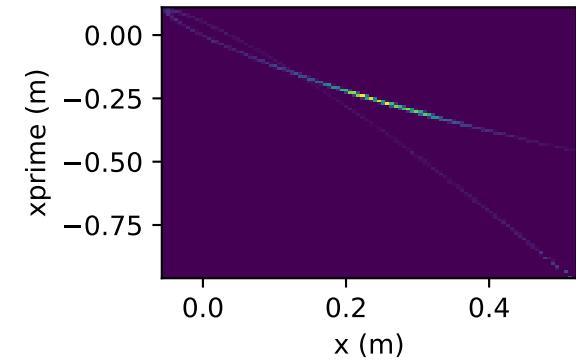
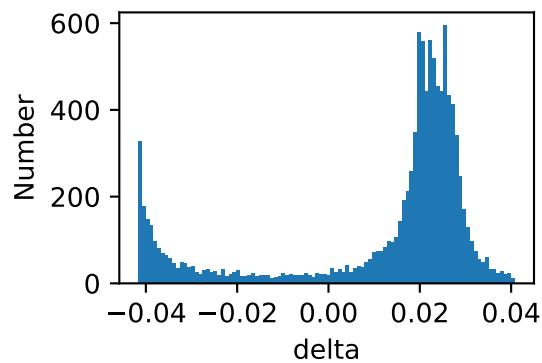
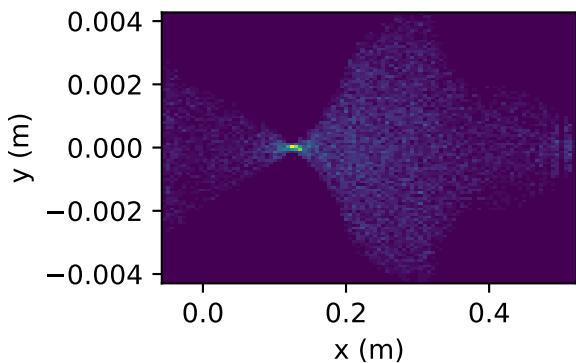
LhARA:1:Arc:Dquad:3



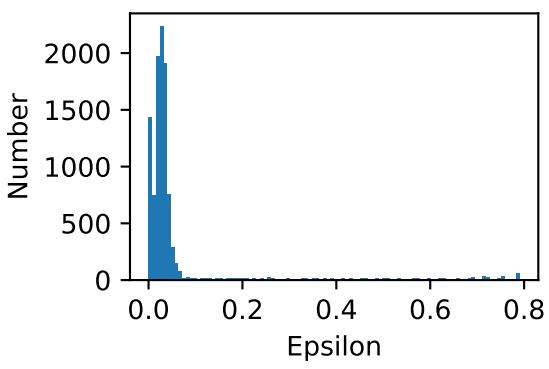
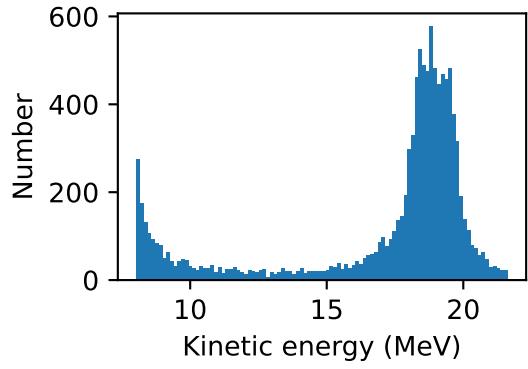
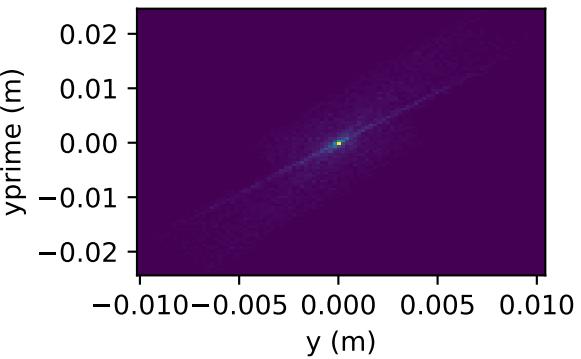
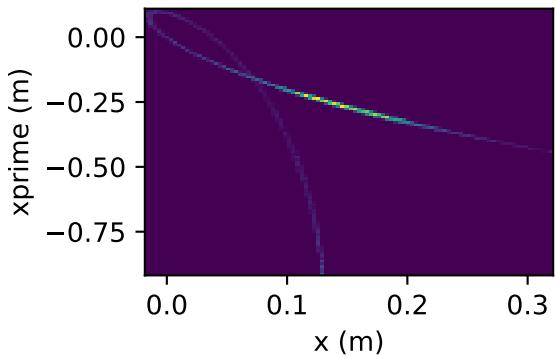
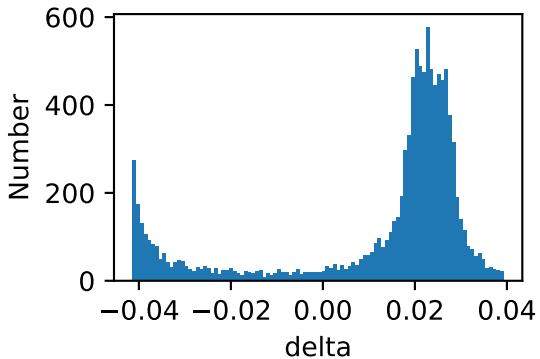
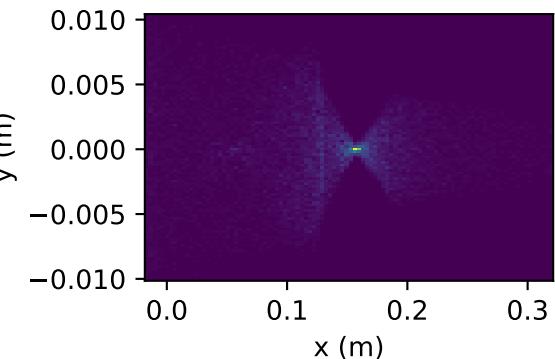
LhARA:1:Arc:Drift:8



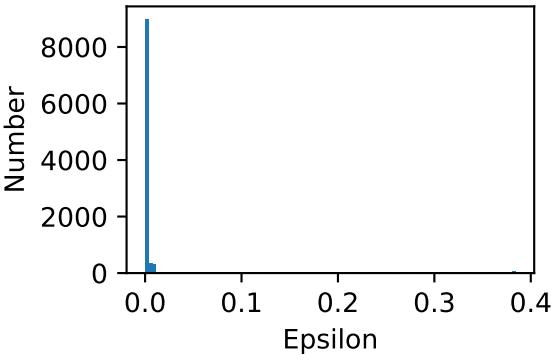
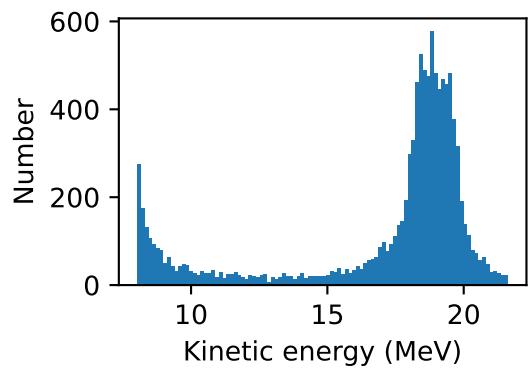
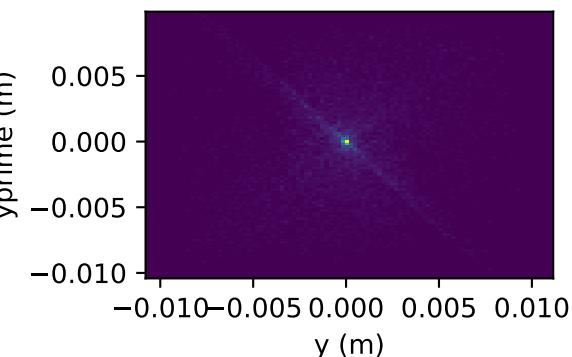
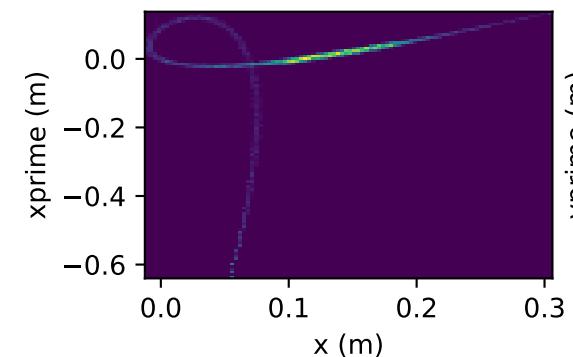
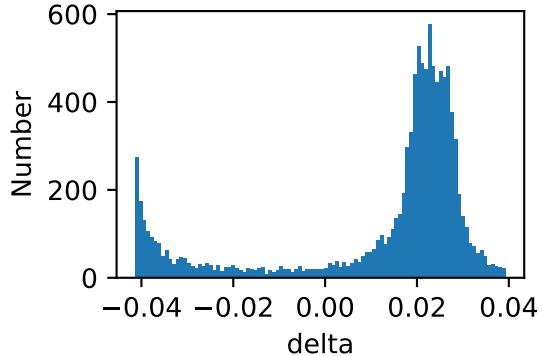
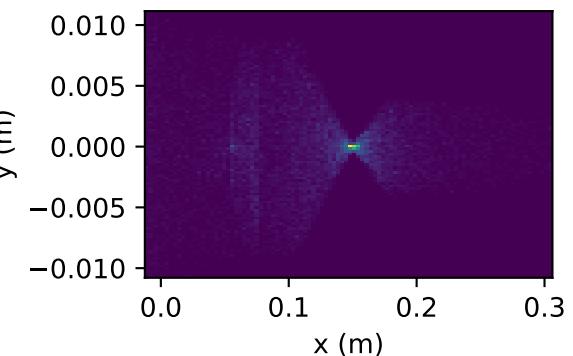
LhARA:1:Arc:Fquad:2



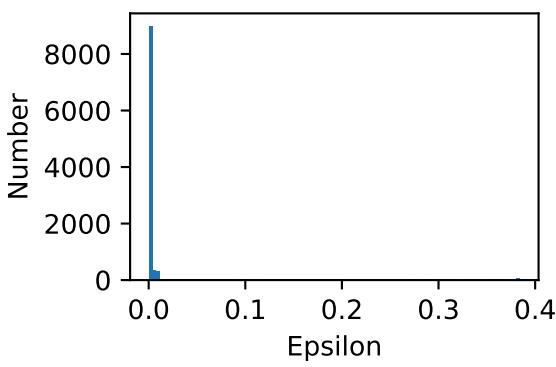
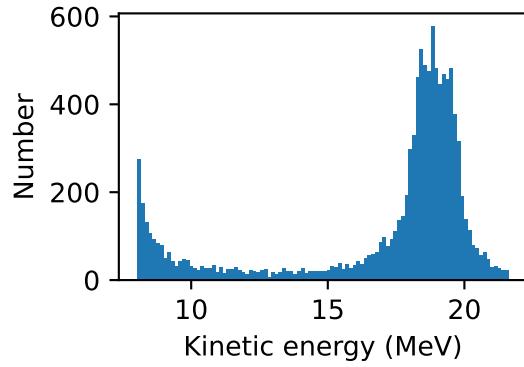
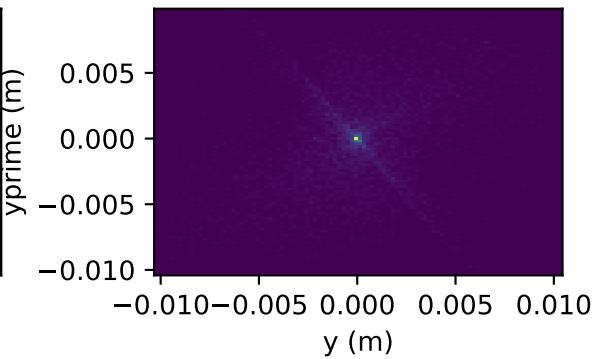
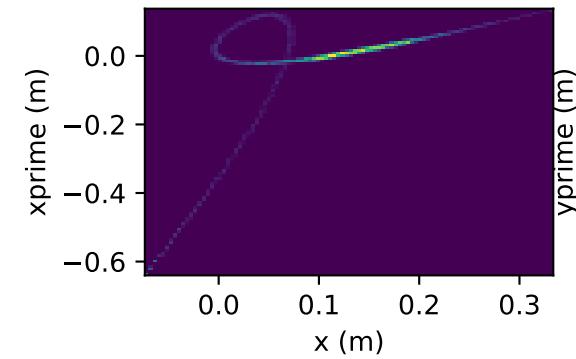
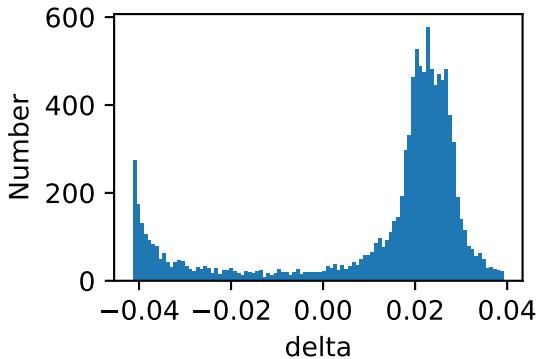
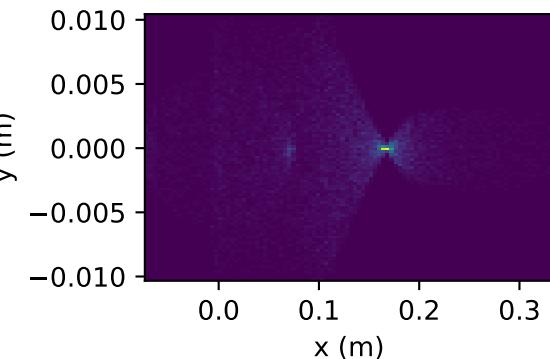
LhARA:1:Arc:Drift:9



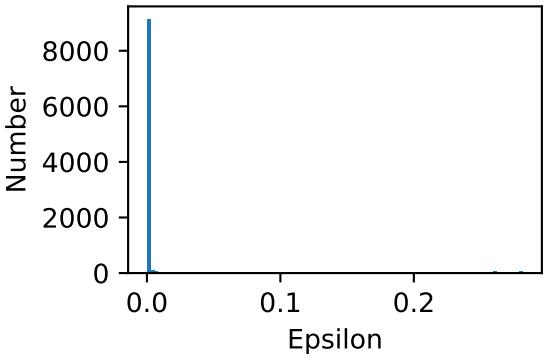
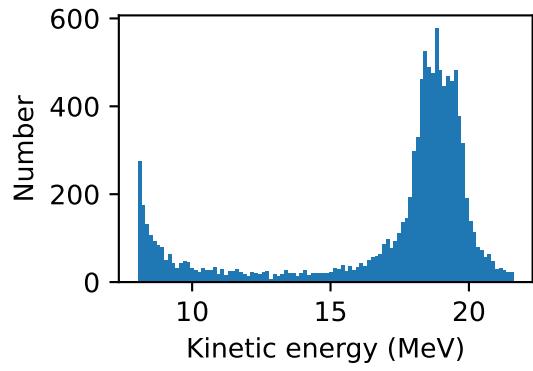
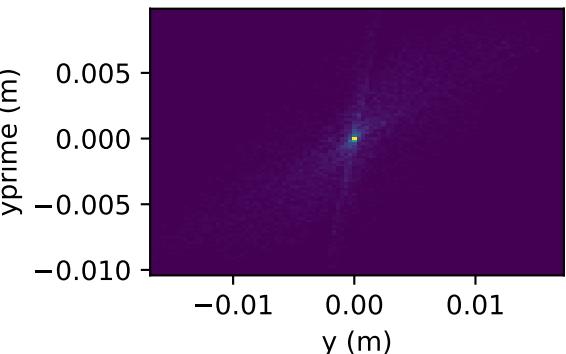
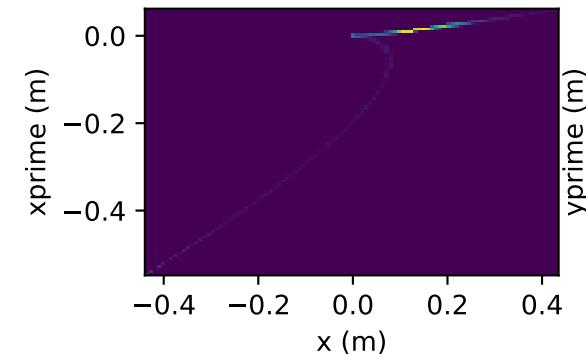
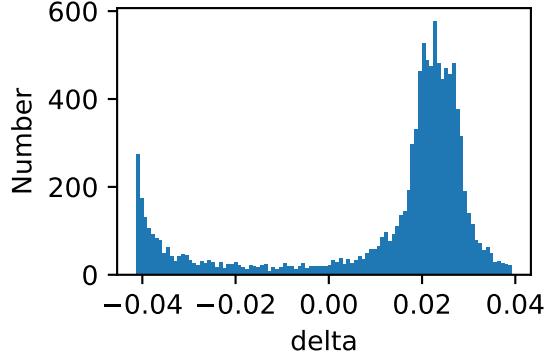
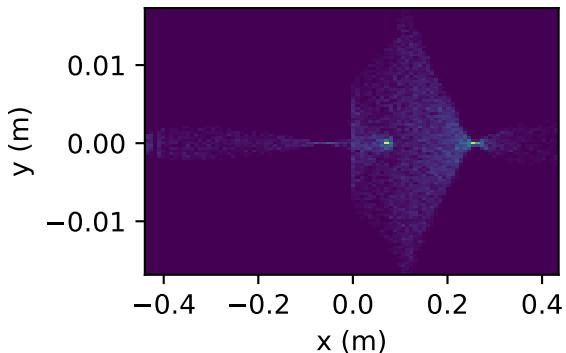
LhARA:1:Arc:Dquad:4



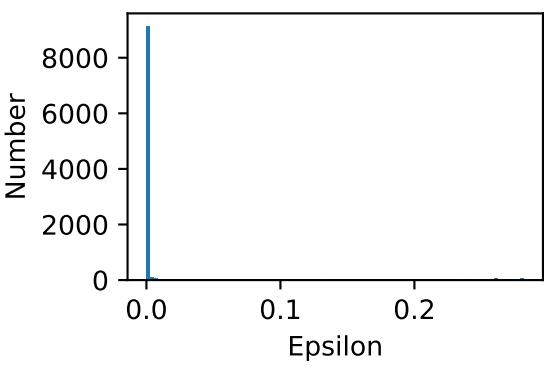
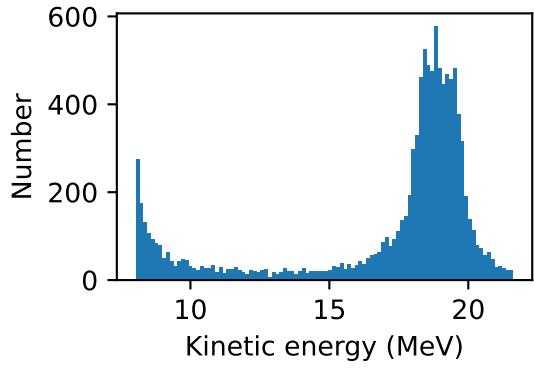
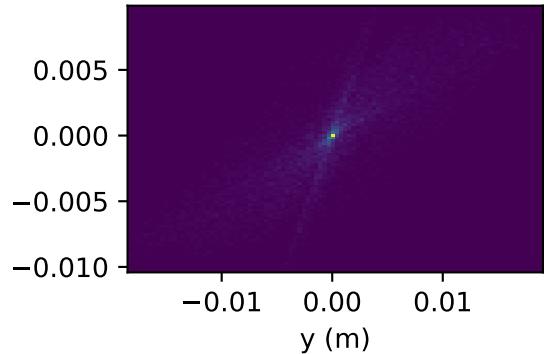
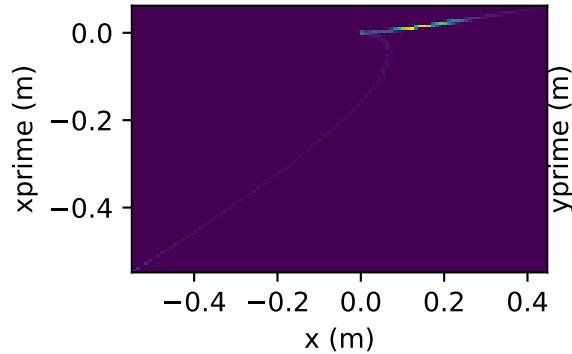
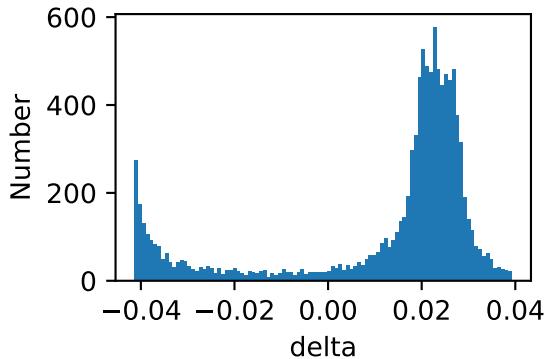
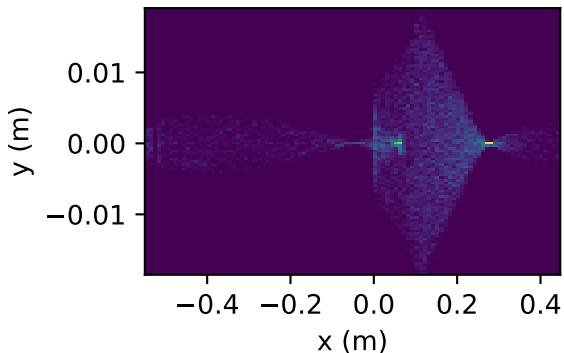
LhARA:1:Arc:Drift:10



LhARA:1:Arc:Dipole:2



LhARA:1:Arc:Drift:11



LhARA:1:Arc:Drift:12

