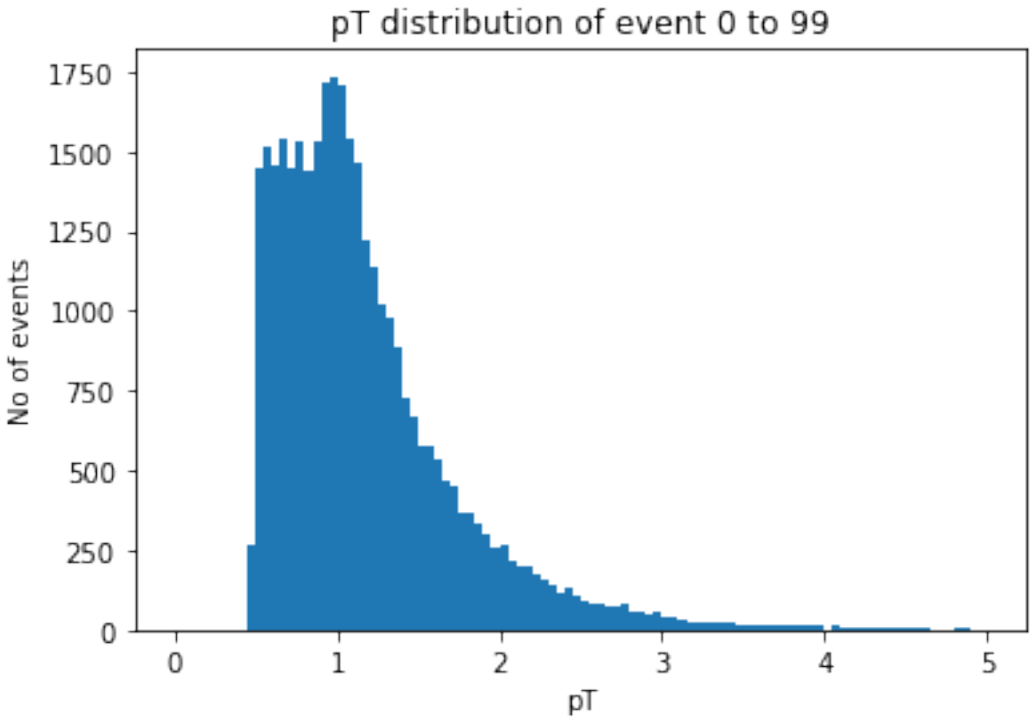
ProjectRun

July 3, 2022

[ ]:
```
from utils import *
```

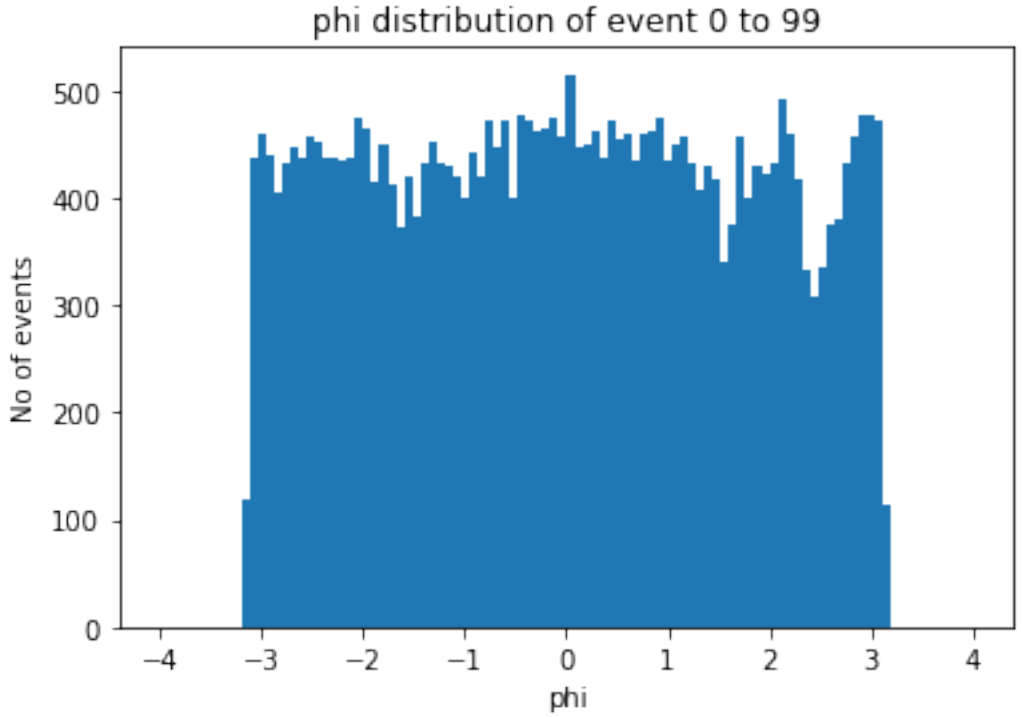
[ ]:
```
event_0to99 = importpdrange(0,99)
print(event_0to99.shape)
```

[ ]:
```
plt.hist(event_0to99['pt'], bins=100, range=(0,5))
plt.title("pT distribution of event 0 to 99")
plt.ylabel('No of events')
plt.xlabel('pT')
plt.show()
```

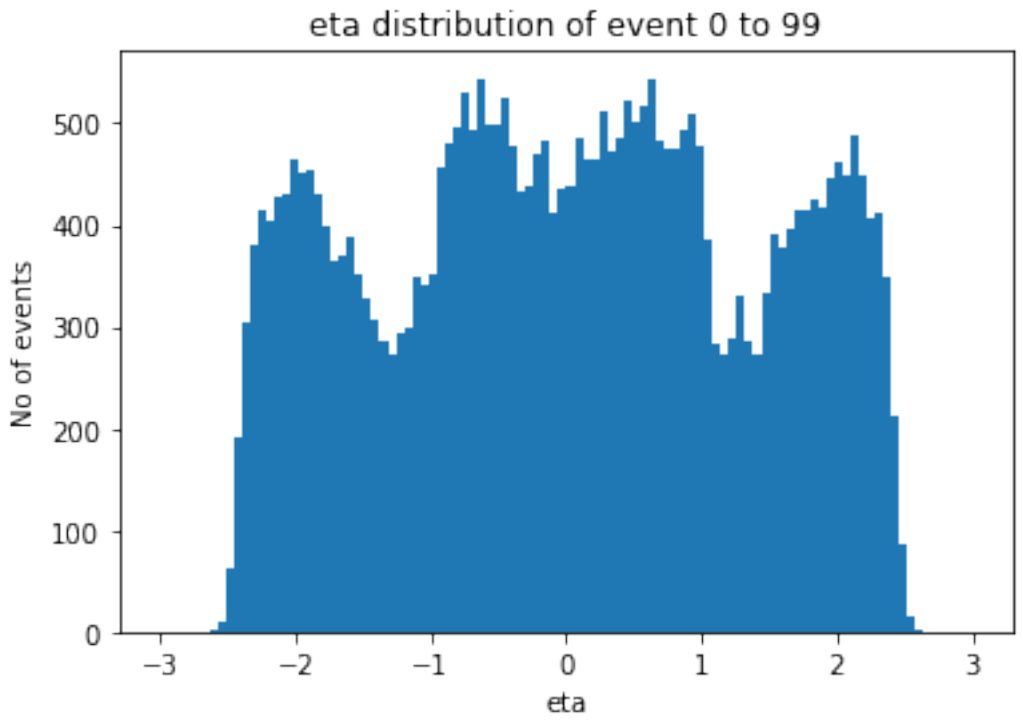


[ ]:
```
plt.hist(event_0to99['phi'], bins=100, range=(-4,4))
plt.title("phi distribution of event 0 to 99")
plt.ylabel('No of events')
```

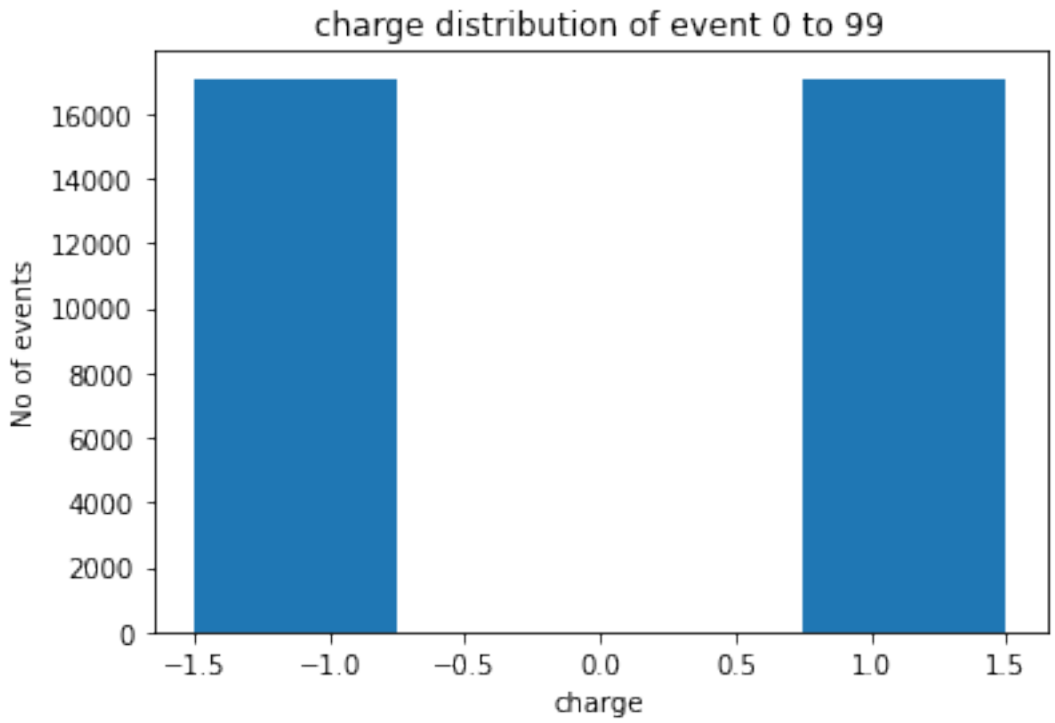
```
plt.xlabel('phi')
plt.show()
```



[ ]:
```
plt.hist(event_0to99['eta'], bins=100, range=(-3,3))
plt.title("eta distribution of event 0 to 99")
plt.ylabel('No of events')
plt.xlabel('eta')
plt.show()
```

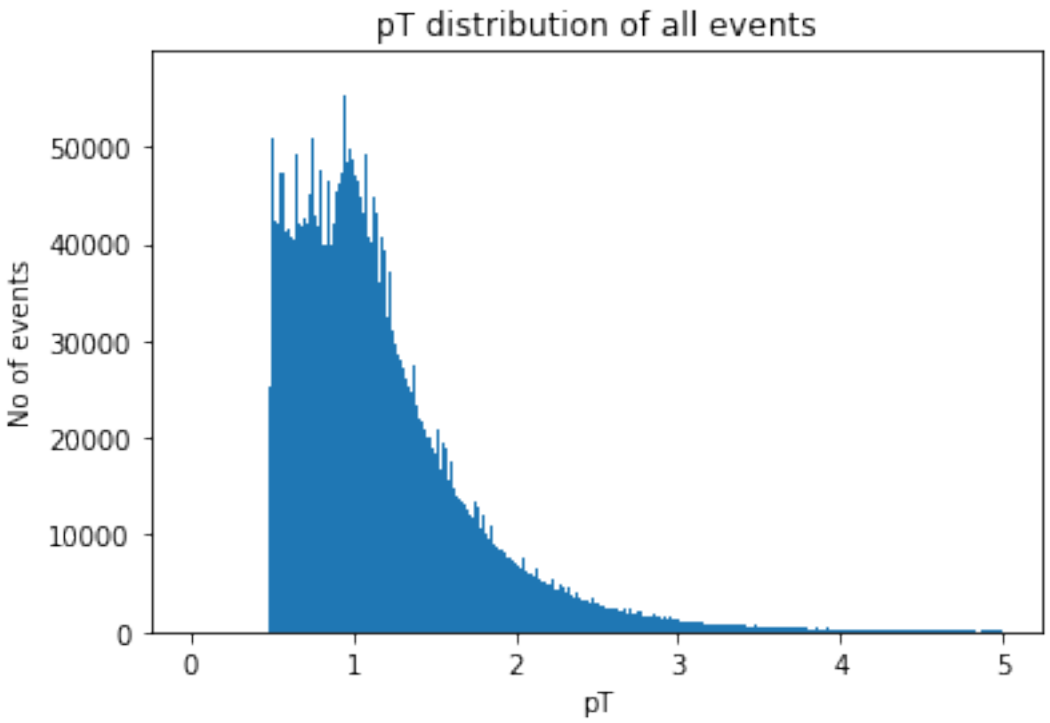


[ ]:
```
plt.hist(event_0to99['charge'], bins=4, range=(-1.5,1.5))
plt.title("charge distribution of event 0 to 99")
plt.ylabel('No of events')
plt.xlabel('charge')
plt.show()
```

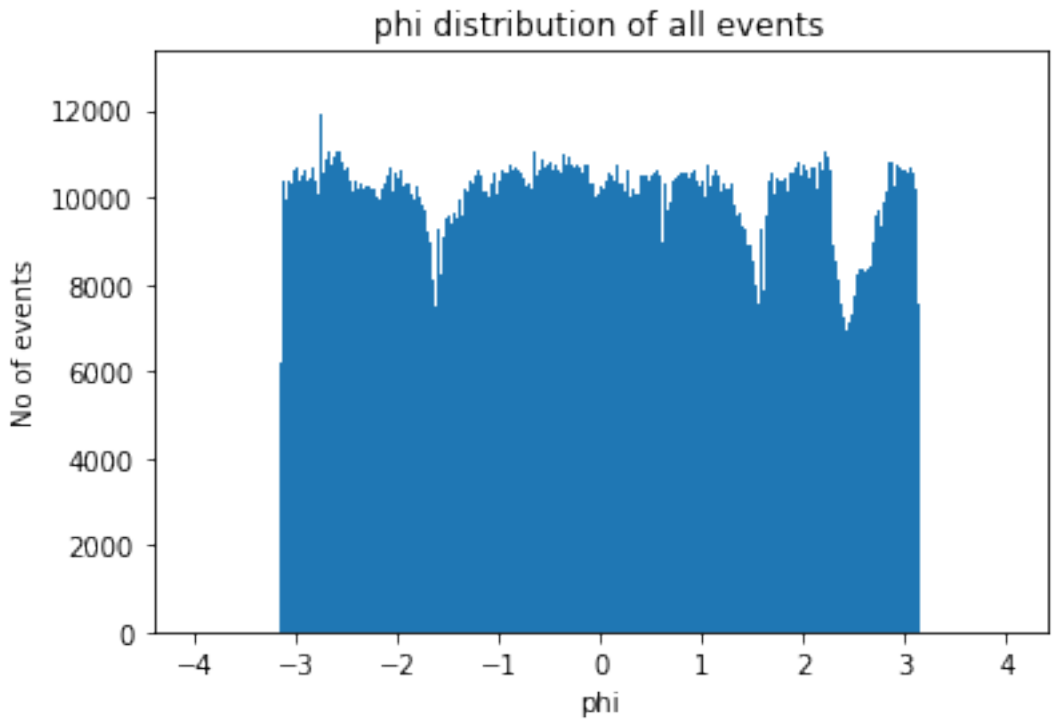


[ ]:
```
event_all = importpbdatapandas(-1)
```

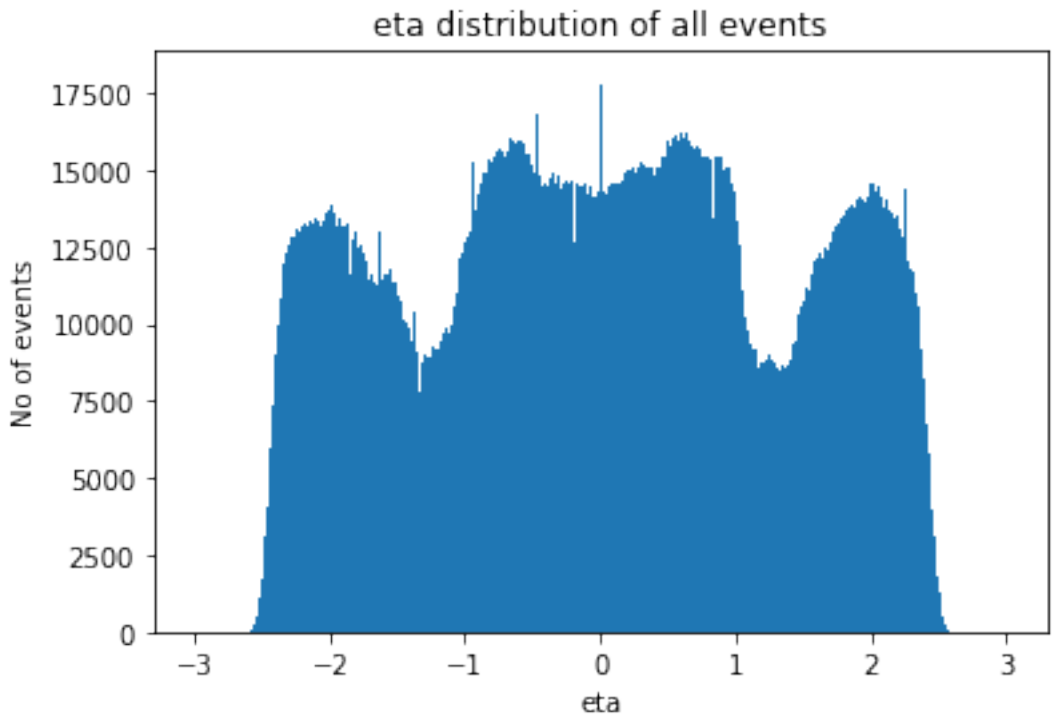
[ ]:
```
plt.hist(event_all['pt'], bins=800, range=(0,5))
plt.title("pT distribution of all events")
plt.ylabel('No of events')
plt.xlabel('pT')
plt.show()
```



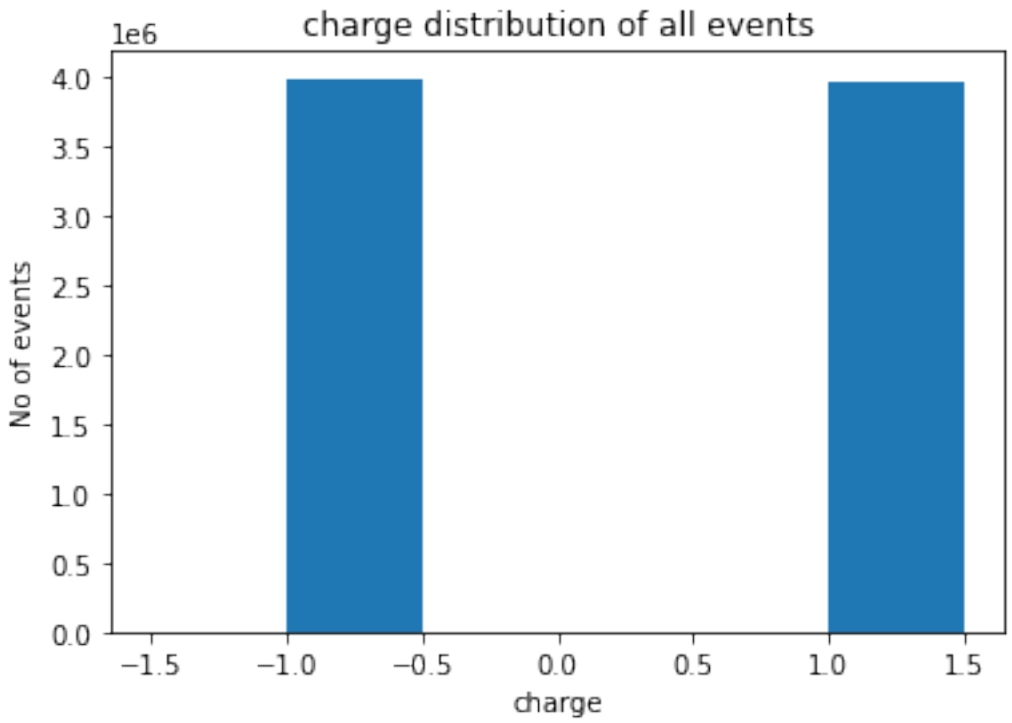
[ ]:
```
plt.hist(event_all['phi'], bins=1000, range=(-4,4))
plt.title("phi distribution of all events")
plt.ylabel('No of events')
plt.xlabel('phi')
plt.show()
```



[ ]:
```
plt.hist(event_all['eta'], bins=750, range=(-3,3))
plt.title("eta distribution of all events")
plt.ylabel('No of events')
plt.xlabel('eta')
plt.show()
```

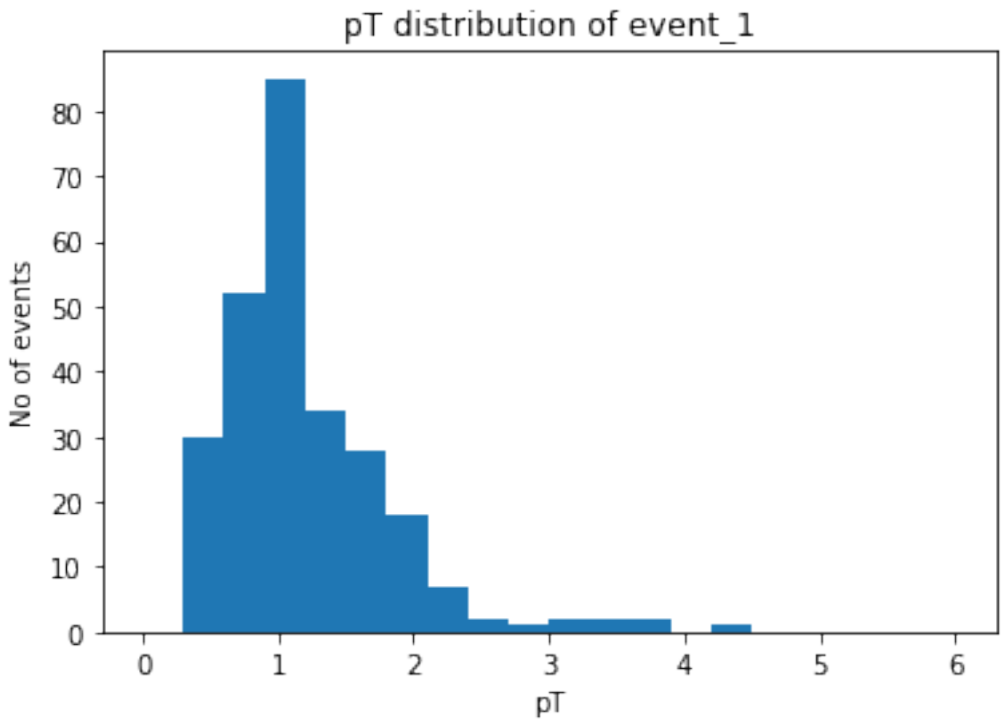


[ ]:
```
plt.hist(event_all['charge'], bins=6, range=(-1.5,1.5))
plt.title("charge distribution of all events")
plt.ylabel('No of events')
plt.xlabel('charge')
plt.show()
```

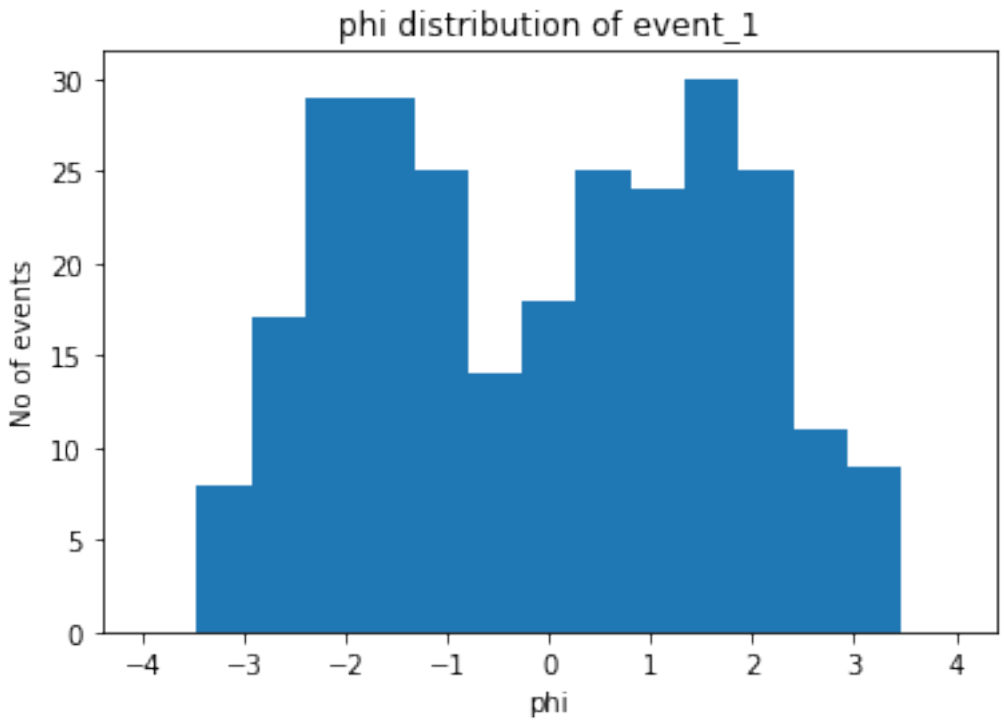


[ ]:
```
event_1 = importpbdatapandas(1)
```

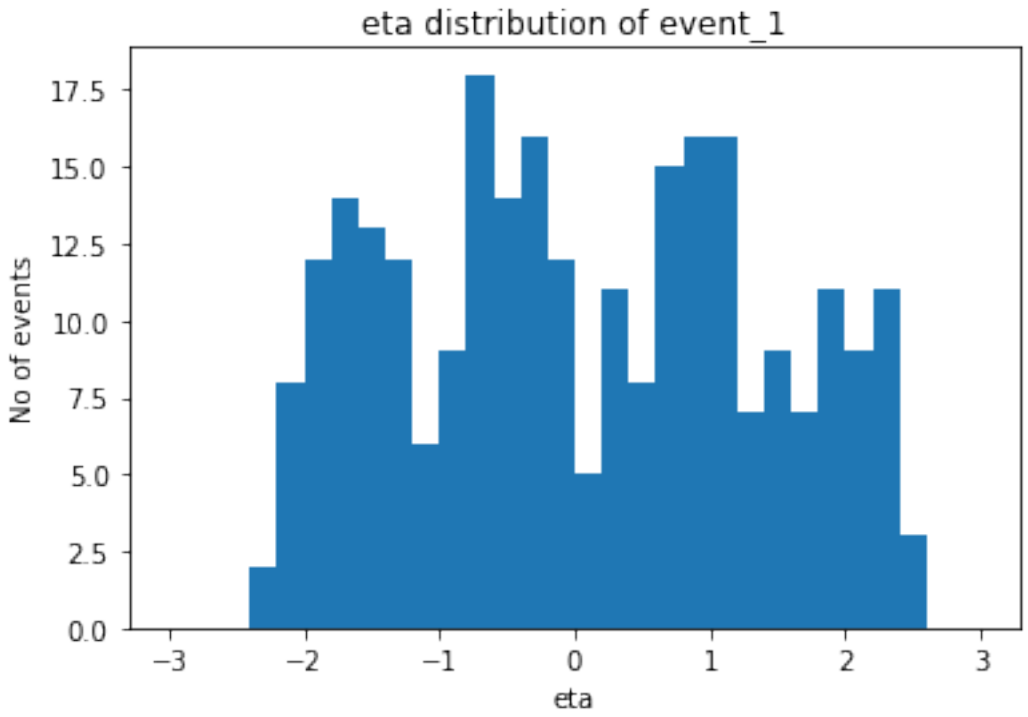
[ ]:
```
plt.hist(event_1['pt'], bins=20, range=(0,6))
plt.title("pT distribution of event_1")
plt.ylabel('No of events')
plt.xlabel('pT')
plt.show()
```



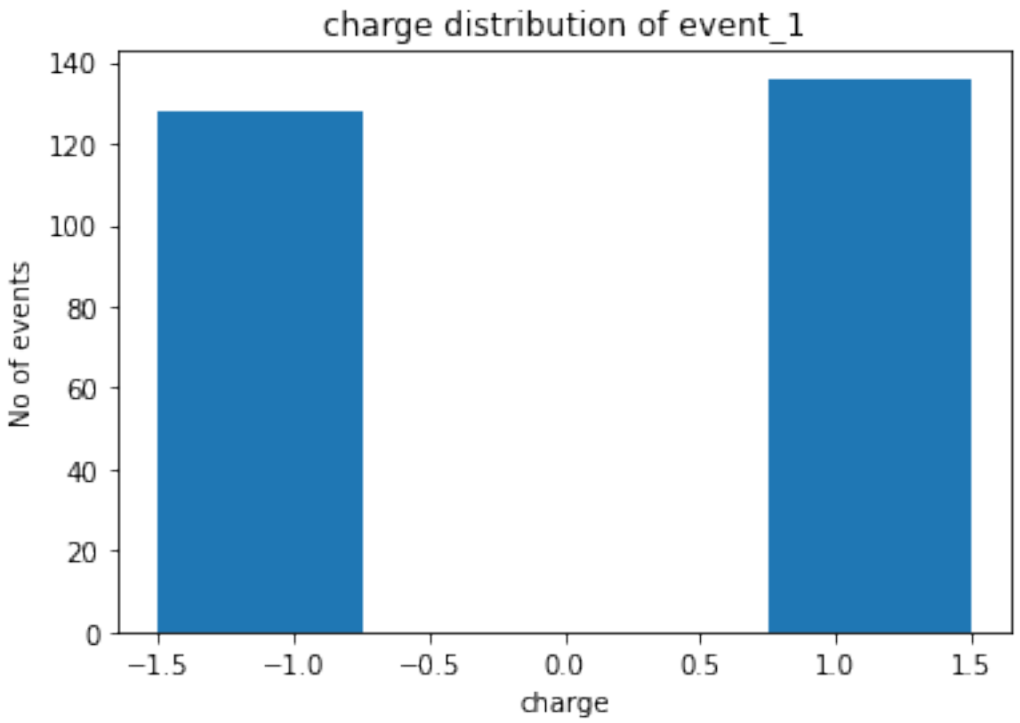
[ ]:
```
plt.hist(event_1['phi'], bins=15, range=(-4,4))
plt.title("phi distribution of event_1")
plt.ylabel('No of events')
plt.xlabel('phi')
plt.show()
```



[ ]:
```
plt.hist(event_1['eta'], bins=30, range=(-3,3))
plt.title("eta distribution of event_1")
plt.ylabel('No of events')
plt.xlabel('eta')
plt.show()
```



[ ]:
```
plt.hist(event_1['charge'], bins=4, range=(-1.5,1.5))
plt.title("charge distribution of event_1")
plt.ylabel('No of events')
plt.xlabel('charge')
plt.show()
```


charge distribution of event_1
No of events
charge
140
120
100
80
60
40
20
0
−1.5
−1.0
−0.5
0.0
0.5
1.0
1.5