upper_triangle

October 30, 2022

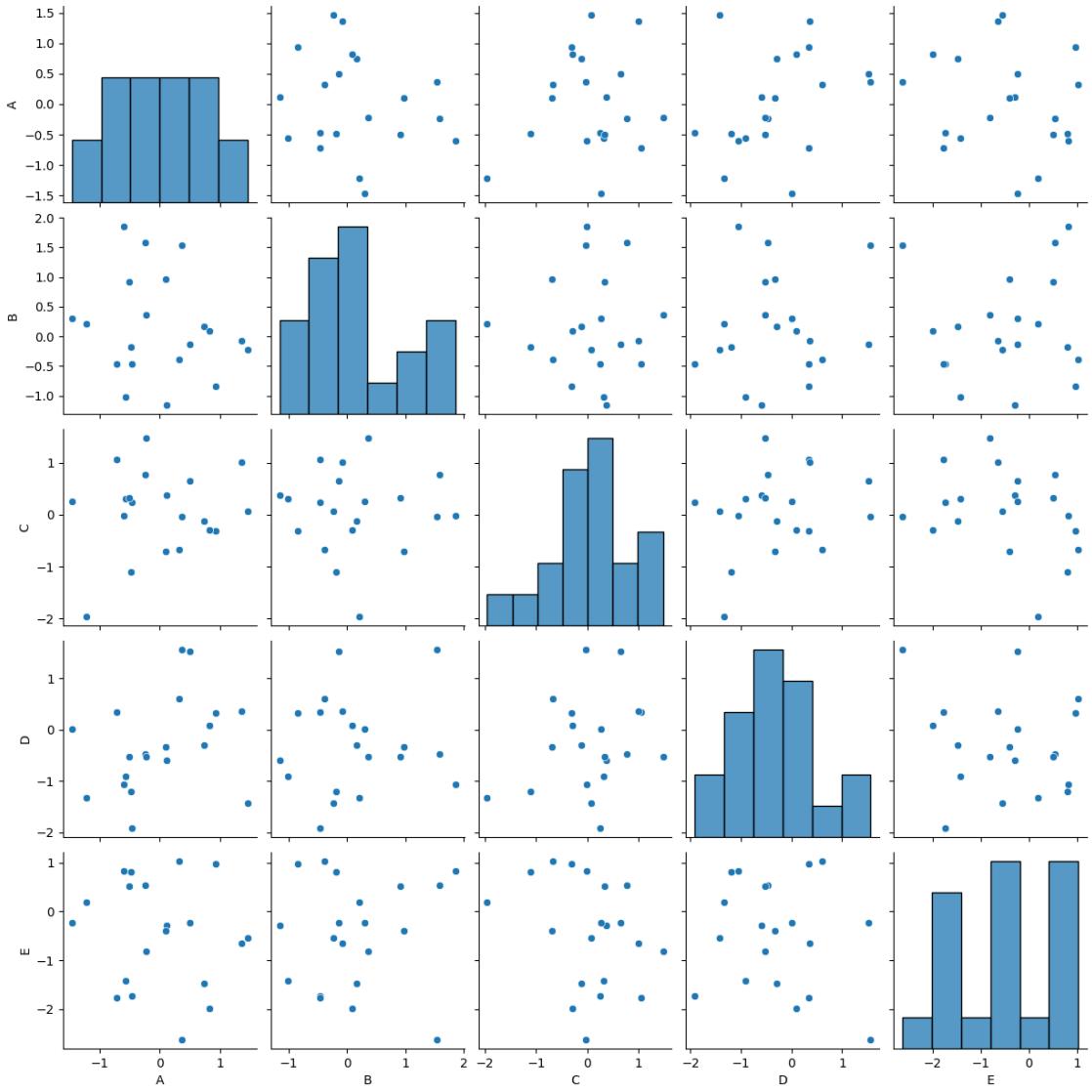
0.1 The objective is to mix different statistics on a same graphic

PairPlot and PairGrid are mainly used for descriptive statistics

PairGrid is very flexible: we can mix scatter, histo, kdeplot and so on, all in one

[ ]:
```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

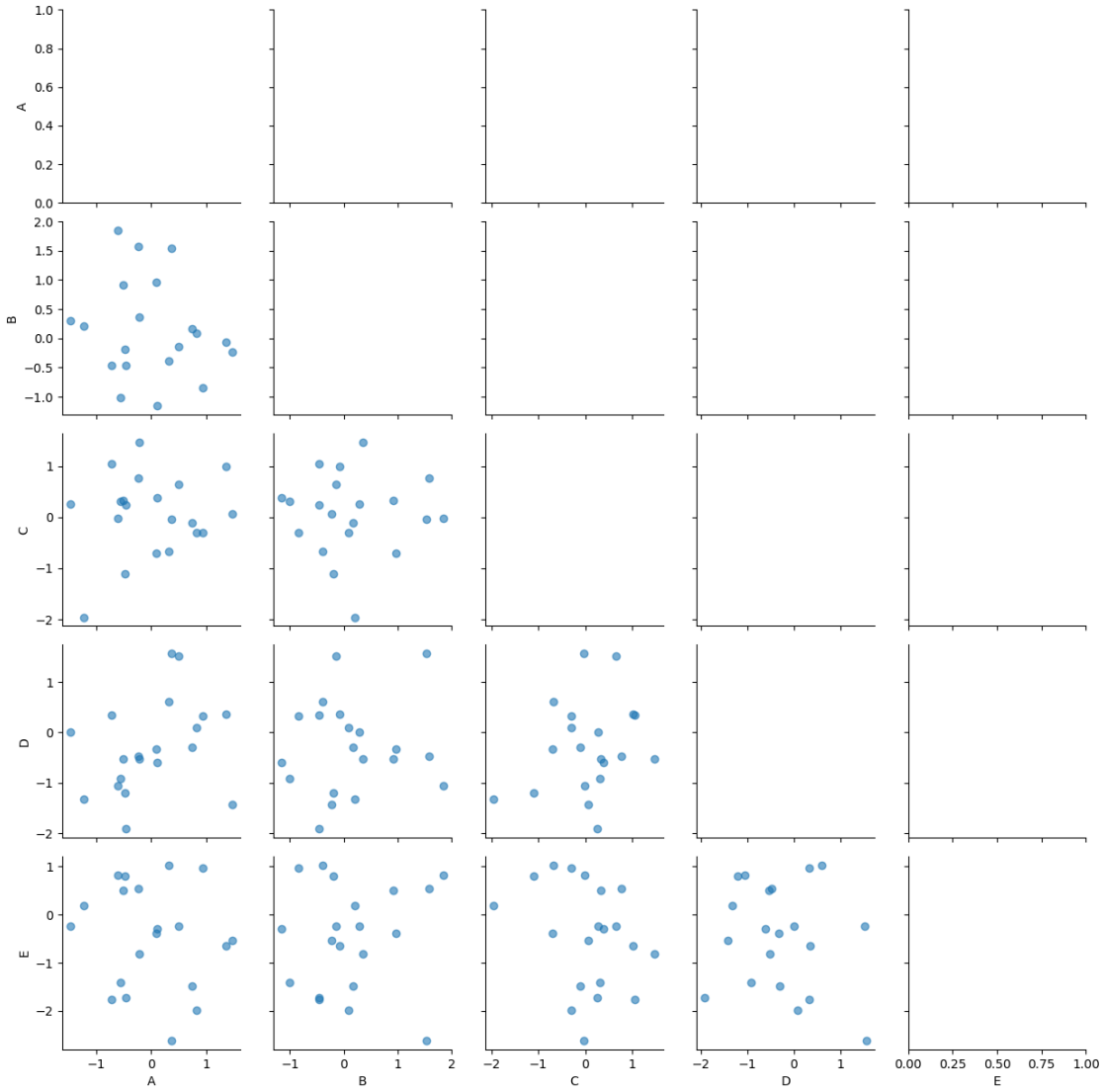
[ ]:
```
# Initiate random state with a seed
rs = np.random.RandomState(42)
# generate a dataset with a normal distribution from the seed and features A,␣
 ↪B, C, D, E
df = pd.DataFrame(data=rs.normal(size=(20, 5)), columns=[*'ABCDE'])

pp = sns.pairplot(df)

plt.show()
```



0.1.1 Using PairGrid

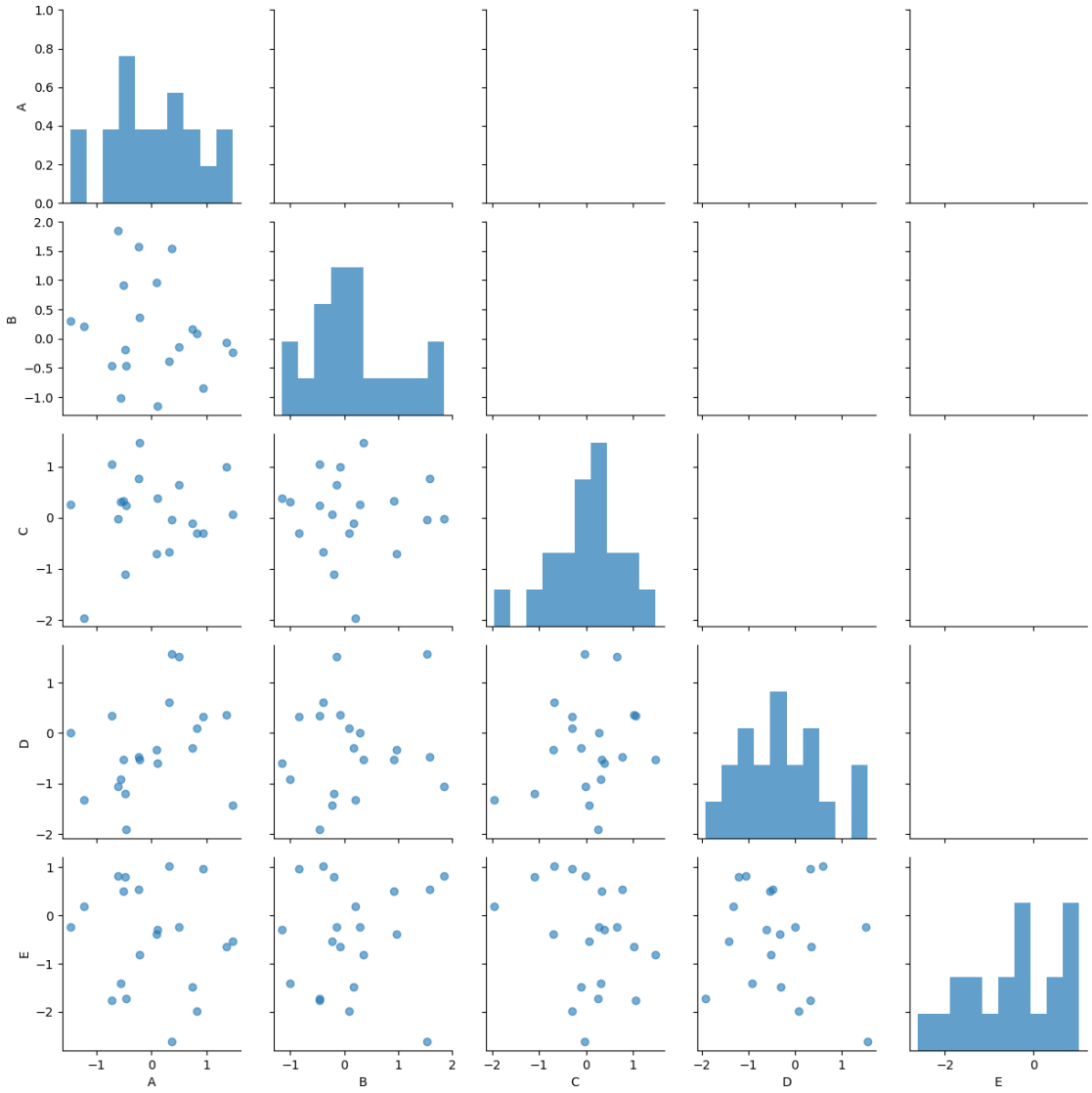
Scattering plot in an lower triangle

[ ]:
```
pg = sns.PairGrid(df)

pg.map_lower(plt.scatter, alpha = 0.6)
plt.show()
```



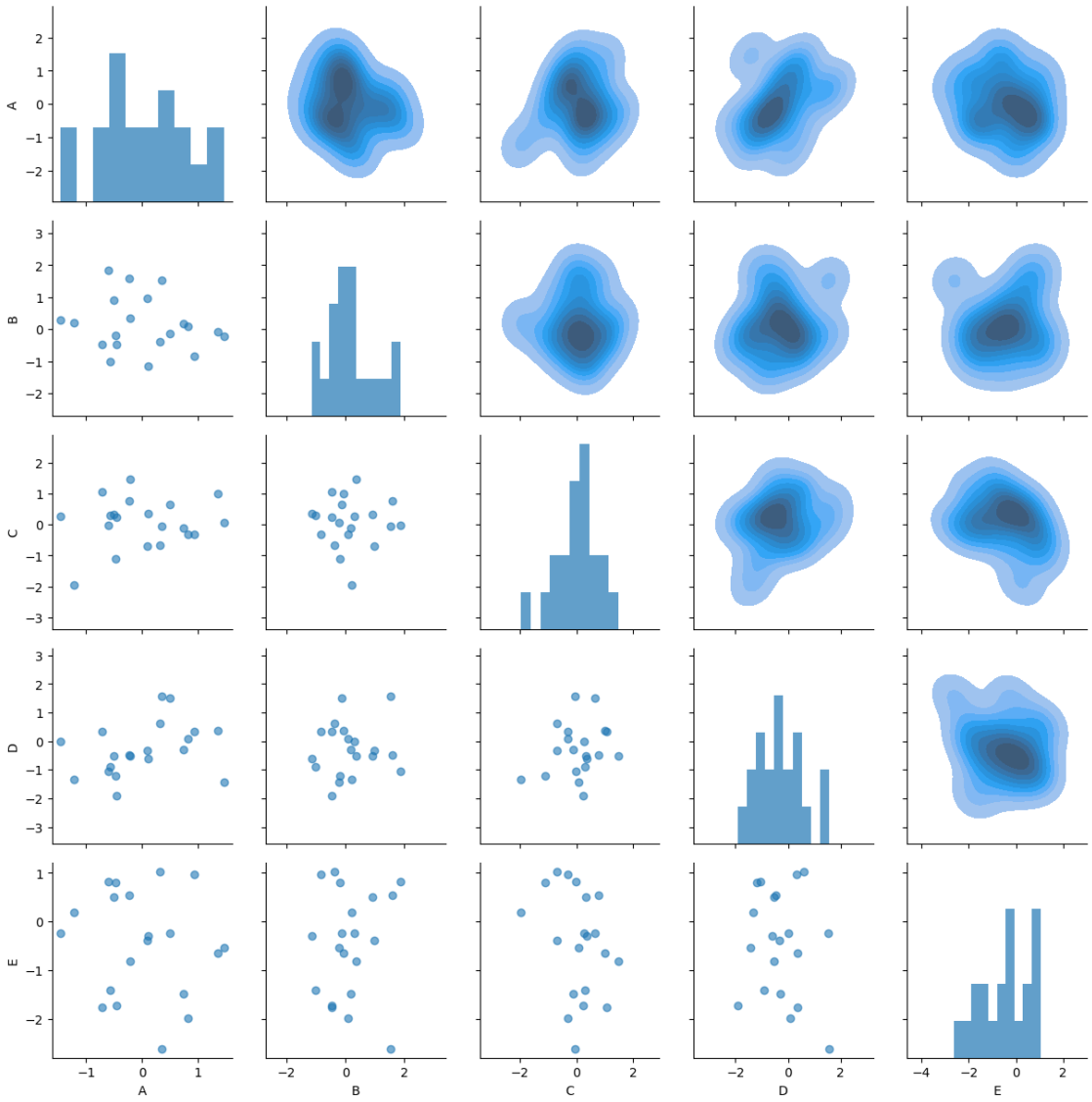
0.1.2 Adding histogram on diag

[ ]:
```
pg = sns.PairGrid(df)

pg.map_lower(plt.scatter, alpha = 0.6)
pg.map_diag(plt.hist, alpha = 0.7)
plt.show()
```



0.1.3 Adding kdeplot on upper triangle

[ ]:
```
pg = sns.PairGrid(df)

pg.map_upper(sns.kdeplot, fill =True)
pg.map_lower(plt.scatter, alpha = 0.6)
pg.map_diag(plt.hist, alpha = 0.7)
plt.show()
```


A
B
C
D
E