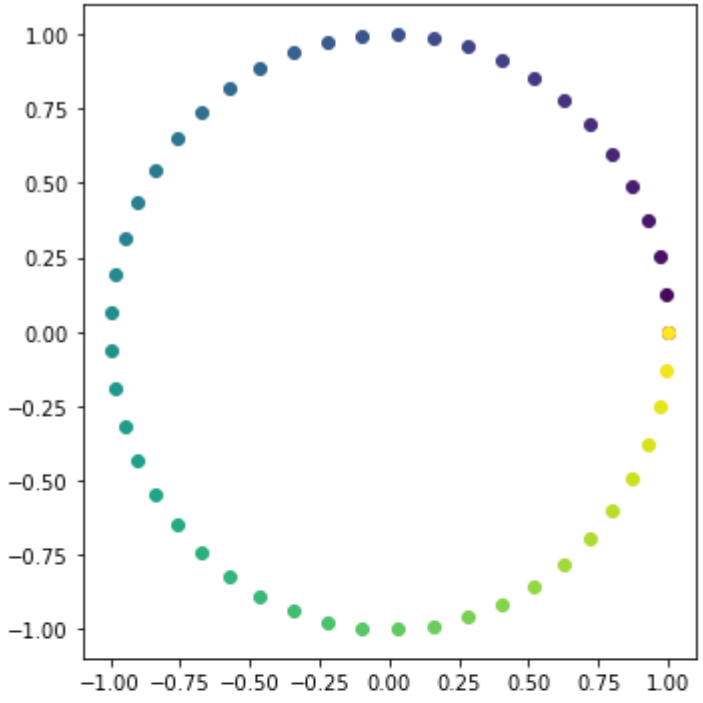
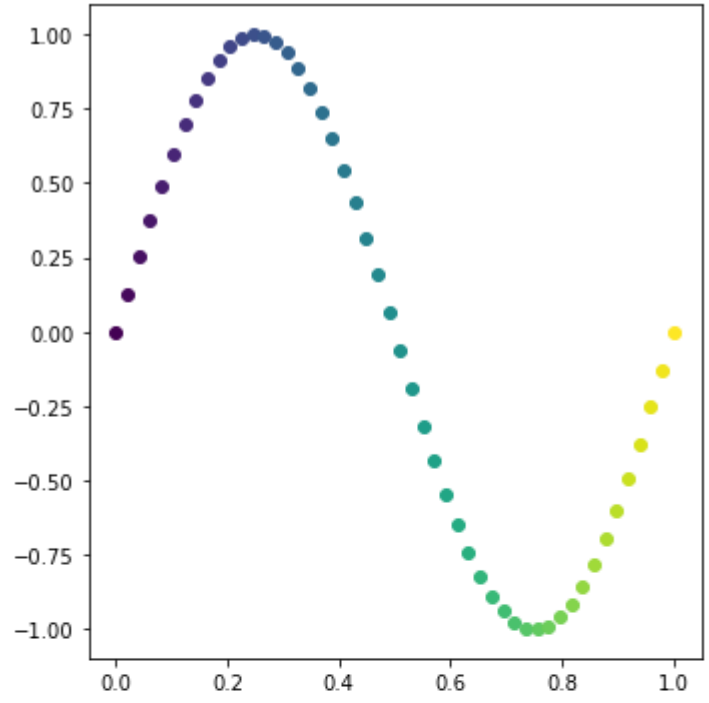
Exponentialfunktion

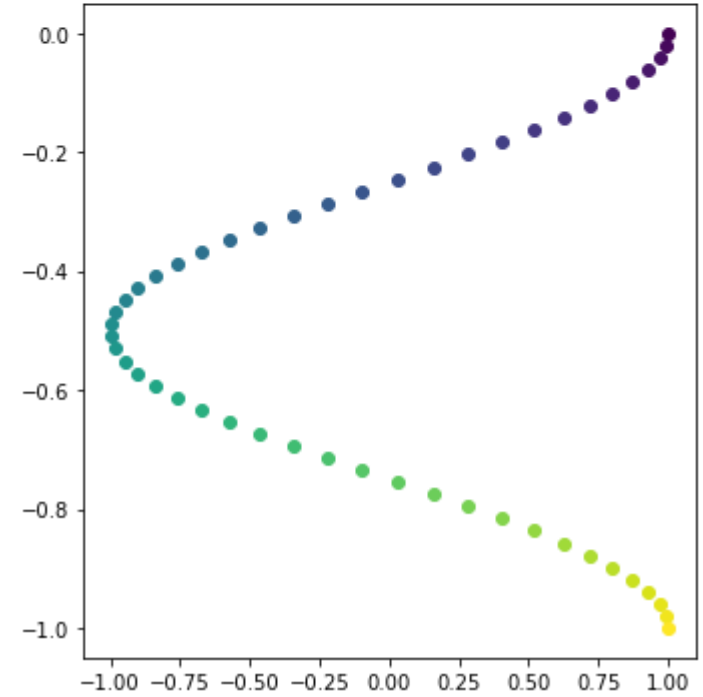
$$e^{t \cdot 2\pi i} = cos(t \cdot 2\pi) + i \cdot sin(t \cdot 2\pi)$$

In [3]:

```
t = np.linspace(0, 1, 50)
e_ = np.exp(t * 2 * np.pi * 1j)

plt.figure(figsize=(5 * 2, 5 * 2))
p1 = plt.subplot(2, 2, 1)
p2 = plt.subplot(2, 2, 2)
p3 = plt.subplot(2, 2, 3)
cm = plt.get_cmap('viridis')

for ex, tx, color in zip(e_, t, cm(t)):
    p1.plot(ex.real, ex.imag, 'o', color=color)
    p2.plot(tx, ex.imag, 'o', color=color)
    p3.plot(ex.real, -tx, 'o', color=color)

plt.tight_layout()
plt.show()
```


1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
−1.00 −0.75 −0.50 −0.25 0.00 0.25 0.50 0.75 1.00


1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0.0 0.2 0.4 0.6 0.8 1.0


0.0
−0.2
−0.4
−0.6
−0.8
−1.0
−1.00 −0.75 −0.50 −0.25 0.00 0.25 0.50 0.75 1.00