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1 #import modules
2 import numpy as np
3 import matplotlib.pyplot as plt
4
5 plt.style.use('seaborn-white')
6
7 #Load data
8 frq = np.array([0.2, 0.4, 0.8, 2, 4, 8, 20, 40, 80, 150, 200, 300])*1000
9 rg1 = np.array([19.2, 19.0, 18.8, 17.0, 13.6, 8.4, 3.6, 1.88, 1, 0.512, 0.384,
10 0.260])*10
11 rg2 = np.array([7.36, 7.36, 7.36, 7.2, 6.88, 5.68, 3.32, 1.84, 0.944, 0.512, 0.380,
12 0.256])*10
13 rg3 = np.array([1.28, 1.28, 1.28, 1.28, 1.28, 1.26, 1.22, 1.06, 0.760, 0.472, 0.364,
14 0.248])*10
15 rg4 = np.array([1.28, 1.28, 1.28, 1.22, 1.09, 0.8, 0.388, 0.204, 0.101, 0.0544,
16 0.0416, 0.0278])*10
17
18 #plot data
19 plt.ylabel('Verstärkung')
20 plt.xlabel('Frequenz'+ '$[1/s] $')
21 plt.xscale('log')
22 plt.yscale('log')
23 plt.plot(frq, rg1, label = '2a, RG1 (680 k$\Omega$)', marker = 'x', markersize = '3')
24 plt.plot(frq, rg2, label = '2a, RG2 (247 k$\Omega$)', marker = 'x', markersize = '3')
25 plt.plot(frq, rg3, label = '2a, RG3 (48,7 k$\Omega$)', marker = 'x', markersize = '3')
26 plt.plot(frq, rg4, label = '2b, RG3 mit Kondensator (560 pF)', marker = 'x',
27 markersize = '3')
28 plt.plot(frq1, rg3p, label = '2c, RG4 mit Hochpass', marker = 'x', markersize = '3')
29 plt.legend(frameon = True)
30 plt.title('Diagramm 3: Verstärkung in Abhängigkrit der Frequenz', size = 14)
31 plt.tight_layout()
32 plt.savefig('Frequenzen.pdf')

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