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#!/usr/bin/env python3
# -*- coding: utf-8 -*-
"""
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"""

import IPython as IP
IP.get_ipython().magic('reset -sf')

import numpy as np
import scipy as sp
import matplotlib as mpl
import matplotlib.pyplot as plt

plt.close('all')

### Load and plot data
D = np.loadtxt('vibration_data/Vibration_measurement.txt',skiprows=23)

tt = D[:,0]
dd = D[:,1]

plt.figure('beam data',figsize=(6.5,3))
plt.plot(tt,dd,'-',label='data 1')
plt.grid(True)
plt.xlabel('time (s)')
plt.ylabel('acceleration (ms-2)')
plt.title('beam data')
plt.xlim([-0.1,45])
plt.legend(framealpha=1,loc=0)
plt.tight_layout()
plt.savefig('plot.pdf')
plt.savefig('plot_1.png')
plt.savefig('plot_2.png',dpi=300)

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