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%pitch estimation using manual method
[x,fs]=audioread('C:\Program Files\MATLAB\MATLAB Production
Server\R2015a\bin\work\data\1-11.wav');
plot(x);axis tight;grid on;
sample=ginput(5);
pp=diff(sample)/fs;
% diff(X), for a vector X, is [X(2)-X(1) X(3)-X(2) ... X(n)-X(n-1)].
pf=1./pp;
%pitch period estimation using autocorrelation
[x,fs]=audioread('C:\Program Files\MATLAB\MATLAB Production
Server\R2015a\bin\work\data\1-11.wav');
b=fir1(51,0.05);
x_filter=filter(b,1,x);
subplot(211),plot(x);axis tight;grid on;
subplot(212),plot(x_filter);axis tight;grid on;
y1=x_filter(5000:5400);
plot(y1);axis tight;grid on;
x_corr=xcorr(y1);
plot(x_corr);axis tight;grid on;
instants=ginput(2);
pp=instants/fs;
pf=1./pp;

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