

Příloha 2

Kompletní zpracování dat v MATLABu

```
clear all
close all
clc
%% General Graphs processing

rootdir = 'Data';
filelist = dir(fullfile(rootdir, '**\*.*)'); %get list of files
and folders in any subfolder
filelist = struct2cell(filelist(~[filelist.isdir]))'; %remove
folders from list
FileIndex = strfind(filelist(:,1),'.fig');
FileIndex = ~cellfun('isempty',FileIndex);
filelist=filelist(FileIndex,:);

Data=[];

for i = 1:length(filelist)

file=[filelist{i,2},'\',filelist{i,1}];
open(file)

Ch=get(gca);
x=(Ch.Children(1).XData)';
yHF=Ch.Children(1).YData;
yLF=Ch.Children(2).YData;
LFHF=(yLF./yHF)';

dt=[LFHF,x];

[r1,c1]=size(dt);
[r2,c2]=size(Data);

    if isempty(Data)
    else
        if r1>r2
            DatN=nan(r1,c2);
            DatN(1:r2,1:c2)=Data(:, :);
            Data=DatN;
        elseif r1<r2
```

```

        DatN=nan(r2,c1);
        DatN(1:r1,1:c1)=dt(:, :);
        dt=DatN;
    else
    end
end

Data=[Data,dt];

close all
end

clearvars -except Data

%% Michal processing
close all
E=xlsread('Seznam chyb');
[r,c]=size(E);
for i=1:r
    figure
    plot(Data(:,i*2),Data(:,(i*2)-1));
    hold on
    stem(E(i,~isnan(E(i,:))),
ones(length(E(i,~isnan(E(i,:))),1).*max(Data(:,(i*2)-1)));
    D=smooth(Data(:,i*2),Data(:,(i*2)-1),25,'sgolay');
    plot(Data(:,i*2),D,'.-');
end

```