clear;clc;close all;

addpath('~/Dropbox/Code/Matlab/General/ExportFig');

width = 4; % Width in inches

height = 3; % Height in inches

alw = 1; % AxesLineWidth

fsz = 6; % Fontsize

lw = 2; % LineWidth

msz = 4; % MarkerSize

fdate=['KO2'];

%'ctl1' or 'HFpEF'

DirName=['./',fdate,'/'];

Tag1 =[];Tag2 =[];Tag3 =[];

Tag1 = '\_12'; % Prep # for date

TAT = xlsread([DirName,fdate,Tag1,'.xlsx'],1);% read length measurements and junctions

Direction = xlsread([DirName,fdate,Tag1,'.xlsx'],2);% read directionality

Qulity = xlsread([DirName,fdate,Tag1,'.xlsx'],3);% read quality

Size = xlsread([DirName,fdate,Tag1,'.xlsx'],4);% read directionality

D.qulity = Qulity(1,1:4);%fit quality

D.branches = TAT(1:end,2);% number of branches

D.AvgBranchelength = TAT(1:end,7);% avg branch length

D.MaxBranchelength = TAT(1:end,10);% max branch length

D.junctions = TAT(1:end,3);% number of junctions

D.DirectionEngel = Direction(46:end,1);% the angle

D.DirectionEngel(136:179,1) = Direction(2:45,1);% the angle

D.DirectionEngelcorrect = Direction(46:end,4);% corrected angle

D.DirectionEngelcorrect(136:179,1) = Direction(2:45,4);

D.DirectionAMP = Direction(46:end,2);% amplitude at each corrected angle

D.DirectionAMP(136:179,1) = Direction(2:45,2);

D.analysedArea = Size(1,2);% total area analyzed in each cell in micro meters squere

D.Pixelsize = Size(3,1);% pixel size in micro meters

D.quilit= Qulity;% pixel size in micro meters

D.fdate = fdate;

D.Tag1 = Tag1;

save([DirName, fdate],'D');

save(['/directory/',fdate,Tag1],'D');