

```

%% Set up folders and experimental conditions
folder=(['/Users//']);
savefolder = ((['/Users/']));%not into "folder" !!!

%% set experimental conditions
pixelsize=0.178; %pixelsize in  $\mu\text{m}$ 
max_linking_distance=0.2; %in  $\mu\text{m}$ 
max_gap_closing=1; % in frames
zspacing=0.01053; %z-spacing between slices
minimumtracklength=50; %in frames

%% call particletracker3D to generate tracks from Quickpalm reads

mkdir(savefolder);
subdirs = dir(folder);

SPACE_UNITS = ' $\mu\text{m}$ ';
TIME_UNITS = 's';
trackslists=[];
filteredtrackslists=[];

for i=1:length(subdirs)
    if isempty(strfind(subdirs(i).name, '.'))
        foldernames{i}=subdirs(i).name;
        resultstable=[folder '/' subdirs(i).name '/' 'Particles
Table.txt'];
        Channel1=[folder '/' subdirs(i).name '/' '1.tif'];
        currentfolder=[folder '/' subdirs(i).name '/'];
        [filteredtrackslis
trackslists]=calibrationcurve_trackplotter(pixelsize,resultstable,max_linki
ng_distance,max_gap_closing,zspacing,minimumtracklength,Channel1,curre
ntfolder);
        trackslists=[trackslists; trackslists];
        filteredtrackslists=[filteredtrackslists; filteredtrackslis
];
    end
end

ma = msdanalyzer(3, SPACE_UNITS, TIME_UNITS);
ma = ma.addAll(filteredtrackslists);

% Display the results
%% Plot the tracks
figure
ma.plotTracks;
ma.labelPlotTracks;
set(gca,'YDir','reverse');%restore orientation as in image
saveas(gca,[savefolder, '/' 'tracks' '.fig'])

```

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%% save ma file  
save([savefolder, '/data.mat']);
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