Contents

```
% Code Summary:
% Short code for reading time series data. Can use this as modular to read
% more data with time. Simply plotting granular temperature wrt time.
```
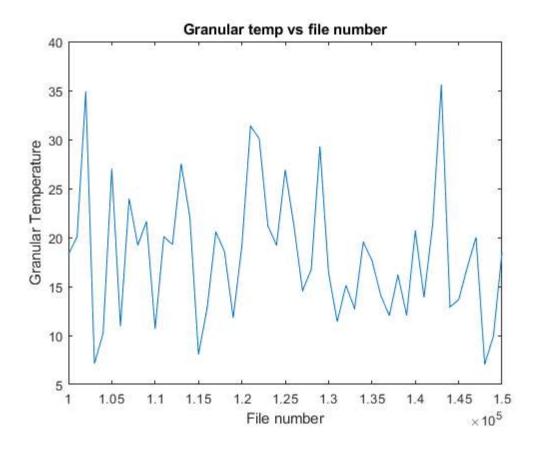
Clearing previous data

```
clc;
close all;
clear all;
```

Load the data

```
filenums = 100000:1000:150000;
gt = zeros(size(filenums, 2), 1);
i = 1;

for time=filenums
    filename = "C:\IISc\DEM\1case\post\particles_" + time + ".liggghts";
    file = importdata(filename, " ", 9);
    data = file.data;

    vx = data(:, 8);
    vy = data(:, 9);
    vz = data(:, 10);

    vxm = vx - mean(vx);
    vym = vy - mean(vy);
    vzm = vz - mean(vz);

    Tgran = 1/3 * mean((vxm.^2 + vym.^2 +vzm.^2));
    gt(i) = Tgran;
    i = i + 1;
end
```

Plotting

```
figure
plot(filenums, gt)
xlabel("File number")
ylabel("Granular Temperature")
title("Granular temp vs file number")
```

Granular temp vs file number