
```
clc
close all; clear all;

AT=dlmread(['3.txt']);
Z = AT(:, 3);
Bx =AT(:, 4);
By =AT(:, 5);
Bz = AT(:, 6);
gradBz1 = gradient(Bz);
gradBx1 = gradient(Bx, By);
gradBp1 = gradient(Bx, By) <= 0.01;
gradBp12 = gradient(Bx, By) <=0.02;
gradBp13 = gradient(Bx, By) <= 0.03;
gradBp14 = gradient(Bx, By) <= 0.04;
gradBp15 = gradient(Bx, By) <= 0.05;
gradBp16 = gradient(Bx, By) <= 0.06;
gradBp17 = gradient(Bx, By) <= 0.07;
gradBp18 = gradient(Bx, By) <= 0.08;
gradBp19 = gradient(Bx, By) <= 0.09;
gradBp20 = gradient(Bx, By) <= 1;
tt1 = [Z gradBp1];
tt12 = [Z gradBp12];
tt13 = [Z gradBp13];
tt14= [Z gradBp14];
tt15 = [Z gradBp15];
tt16= [Z gradBp16];
tt17 = [Z gradBp17];
tt18 = [Z gradBp18];
tt19 = [Z gradBp19];
tt20 = [Z gradBp20];
A1 = tt1(tt1(:,2) > 0, :);
A2 = tt12(tt12(:,2) > 0, :);
A3 = tt13(tt13(:,2) > 0, :);
A4 = tt14(tt14(:,2) > 0, :);
A5 = tt15(tt15(:,2) > 0, :);
A6 = tt16(tt16(:,2) > 0, :);
A7 = tt17(tt17(:,2) > 0, :);
A8 = tt18(tt18(:,2) > 0, :);
A9 = tt19(tt19(:,2) > 0, :);
A10 = tt20(tt20(:,2) > 0, :);
writematrix(A1,'1.xlsx','Sheet',1);
writematrix(A2,'12.xlsx','Sheet',1);
writematrix(A3,'13.xlsx','Sheet',1);
writematrix(A4,'14.xlsx','Sheet',1);
writematrix(A5,'15.xlsx','Sheet',1);
writematrix(A6,'16.xlsx','Sheet',1);
writematrix(A7,'17.xlsx','Sheet',1);
writematrix(A8,'18.xlsx','Sheet',1);
writematrix(A9,'19.xlsx','Sheet',1);
writematrix(A10,'20.xlsx','Sheet',1);
zippedfiles = zip('part3.zip',{ ...
    '1.xlsx', ...
```

```
'12.xlsx' , ...  
'13.xlsx' , ...  
'14.xlsx' , ...  
'15.xlsx' , ...  
'16.xlsx' , ...  
'17.xlsx' , ...  
'18.xlsx' , ...  
'19.xlsx' , ...  
'20.xlsx' } ) ;
```

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