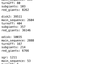
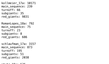
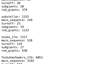
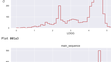
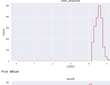
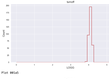
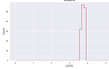
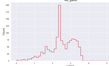
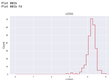
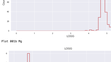
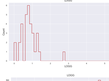
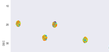
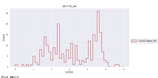
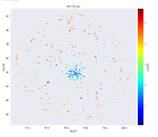
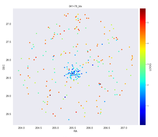
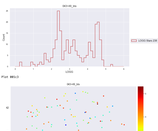
```
Python 3.7.8 (default, Jun 24 2020, 07:29:10)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-44)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
IPython 7.2.0 -- An enhanced Interactive Python.

In [1]: runfile('/home/jonathanrosie/Apogee By Programmer 3.py', wdir='/home/jonathanrosie')
/home/jonathanrosie/anaconda3/bin/python
Using matplotlib backend: Qt5Agg

Class 0: 12
Class 1: 2
Class 2: 2182
Class 3: 5248
Class 4: 1248
Class 5: 2148
Class 6: 1248
Class 7: 1224
Class 8: 1224
Class 9: 1224

Y1: 42212
Y2: 42248
Y3: 42248
Y4: 42248
Y5: 42212

X11: Stars 47280?

X6: Stars 5736

Y4_p: Stars 5256
Y5_p: Stars 5256
Y1_p: Stars 10056
Y2_p: Stars 10056

X6W_p: Stars 20040
X6P_p: Stars 20040
X6W_p: Stars 12024
X6P_p: Stars 12024

X6W_m: Stars 20040
X6P_m: Stars 20040
X6W_m: Stars 12024
X6P_m: Stars 12024

Y4_m: Stars 7848
Y5_m: Stars 7848
Y1_m: Stars 7848
Y2_m: Stars 7848

Y4_p: Stars 21288
Y5_p: Stars 21288
Y1_p: Stars 21288
Y2_p: Stars 21288

Fields: ['DEC-m2', 'RA>=0.', 'RA<=0.5', 'Blind_pos', 'DEC>=0.5',
 'Blind_neg', 'WRN>0.5p', 'Ident_pos', 'LIB>2', 'pos', 'Circle_pos',
 'Circle_neg', 'Ident_neg', 'Ident_m', 'Circle_m']

Plot BB1
main_sequence 1062
subgiants: 1
subgiants: 1
red_giants: 1125

Plot BB1a2

Plot BB1a3

Plot BB1a4

Plot BB1a5

Plot BB1a6



Plot BB1a7

Plot BB2b F4

Plot BB2b OH2

Plot BB2b OHg

Plot BB2b M4

Plot BB2b M6



Plot BB2c



Plot BB2c2

Plot BB2c3

Plot BB2c4

Plot BB2c5

Plot BB2c6



Plot BB2c7



Plot BB2c8



Plot BB2c9



Plot BB2c



Plot BB2c2



Plot BB2c3

Plot BB2c4

Plot BB2c5

Plot BB2c6



Plot BB2c7



Plot BB2c8

Plot BB2c9

Plot BB3c

Plot BB3c2



Plot BB3c3

Plot BB3c4

Plot BB3c5

Plot BB3c6

Plot BB3c7

Plot BB3c8



Plot BB3c9



Plot BB1c






Plot BB1c2



Plot BB1c3





```



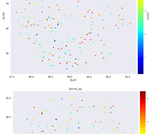
Plot BELD

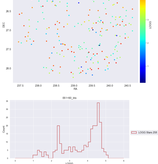


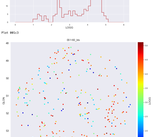




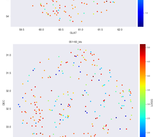
Plot BELD

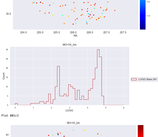


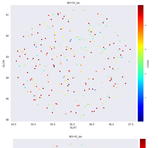




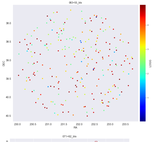
Plot BELD

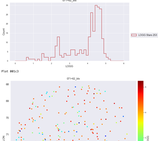


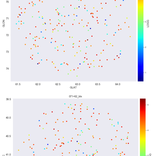




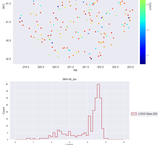
Plot BELD

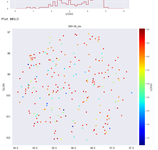


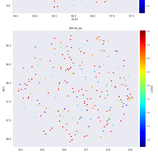




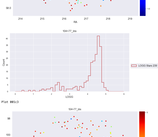
Plot BELD

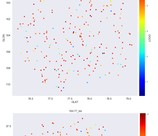


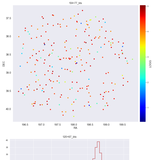




Plot BELD

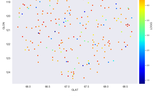


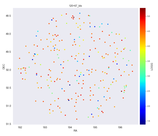


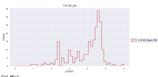


Plot BELD

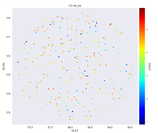
Plot BELD

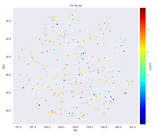


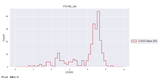




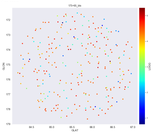
Plot 86LO

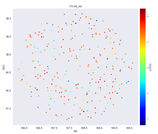


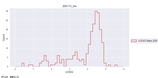




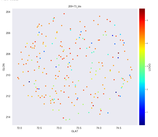
Plot 86LO

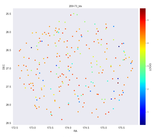


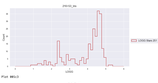




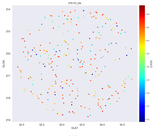
Plot 86LO

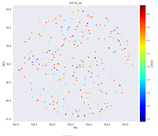


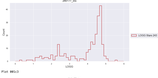




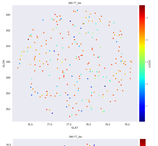
Plot 86LO

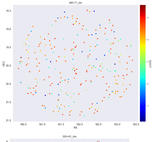


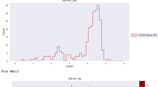




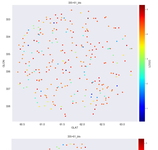
Plot 86LO

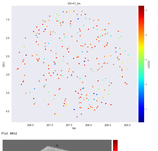




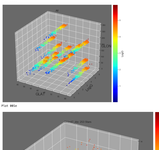


Plot 86LO

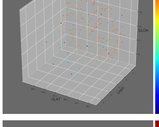


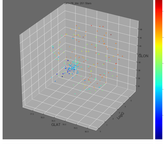


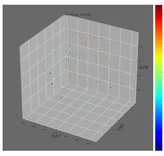
Plot 86Hz

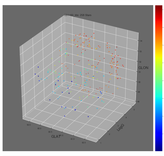


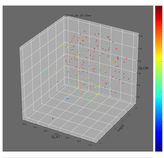
Plot 86Hz

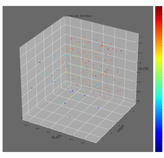


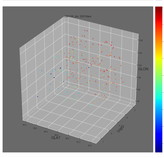


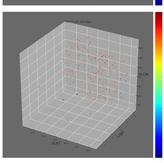


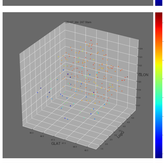


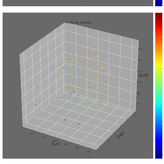


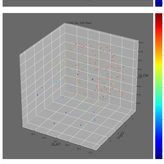


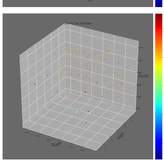


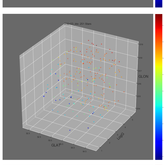


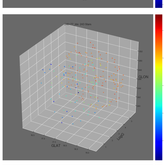


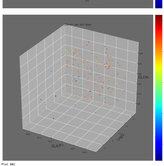


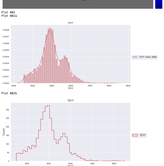












Plot MAT
Plot DMLA

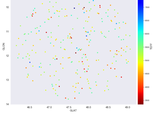
Plot MAT

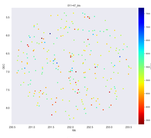
Plot MAT

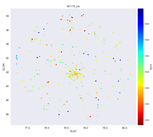
Plot MAT

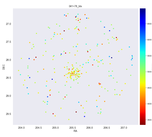
Plot MAT

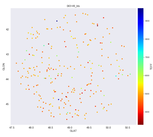
Plot MAT

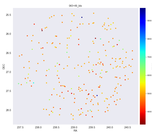

DEC
RA

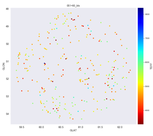

DEC
RA

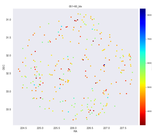

DEC
RA

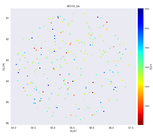

DEC
RA

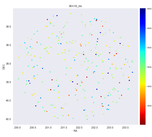

DEC
RA

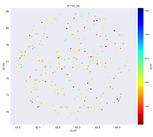

DEC
RA

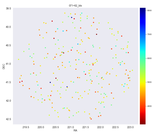

DEC
RA

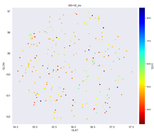

DEC
RA

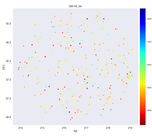

DEC
RA

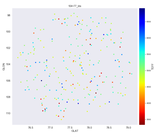

DEC
RA

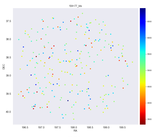

DEC
RA

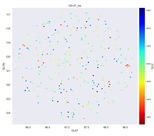

DEC
RA

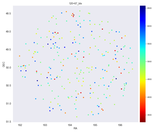

DEC
RA

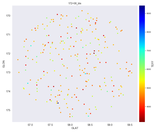

DEC
RA


DEC
RA


DEC
RA


DEC
RA


DEC
RA


DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

DEC
RA

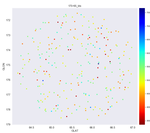
DEC
RA

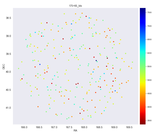
DEC
RA

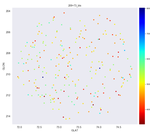
DEC
RA

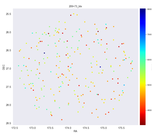
DEC
RA

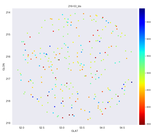
DEC
RA

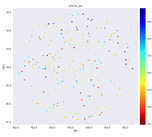


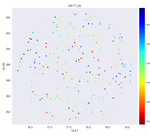


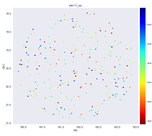


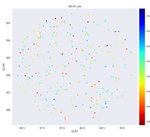


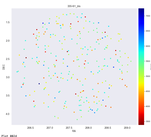


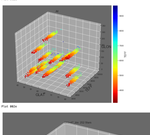






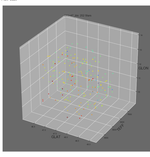


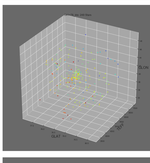


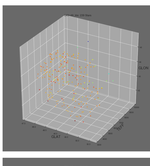


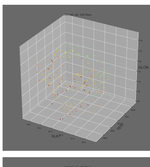
Plot MB12

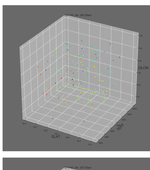
Plot MB14

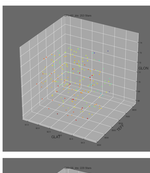


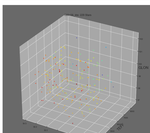


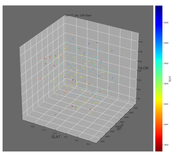


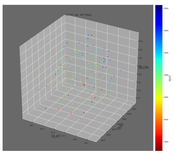


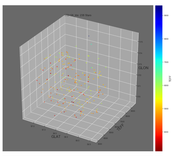


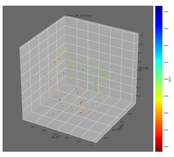


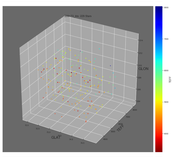


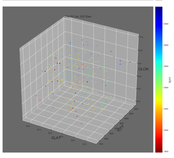


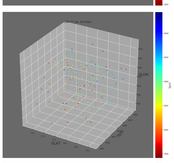


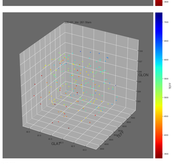








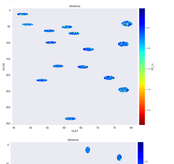


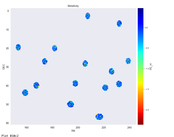


Plot #18
Plot #19b

Plot #19c

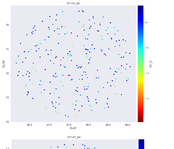
Plot #19d

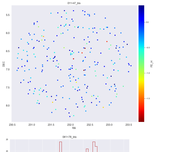




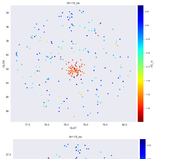
Plot #19e.1

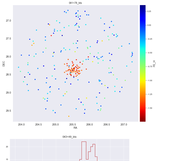
Plot #19e.2



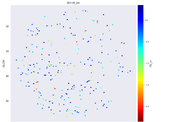


Plot #19e.3

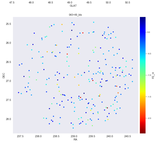


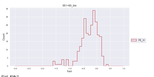


Plot #19e.3

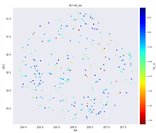


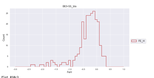
Plot #19e.3



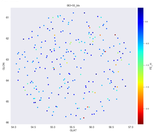


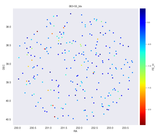
Flux 836.0

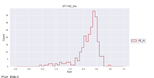




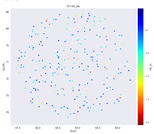
Flux 836.0

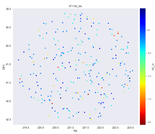


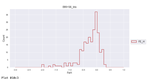




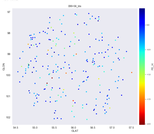
Flux 836.0

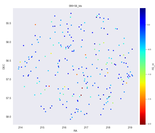




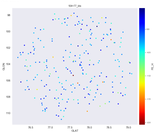


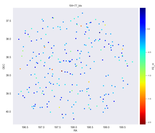
Flux 836.0

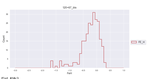




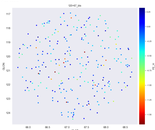
Flux 836.0

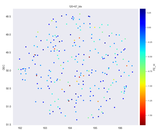


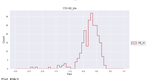




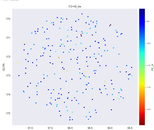
Flux 836.0

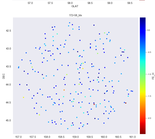






Flux 836.0





Flux 836.0

Flux 836.0

Flux 836.0

Flux 836.0

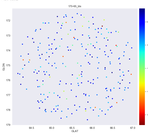
Flux 836.0

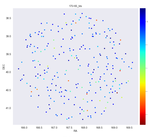
Flux 836.0

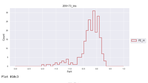
Flux 836.0

Flux 836.0

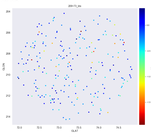
Plot EVN:3

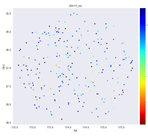


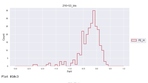




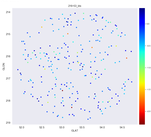
Plot EVN:3

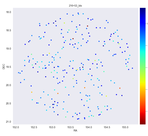


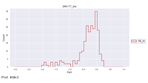




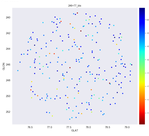
Plot EVN:3

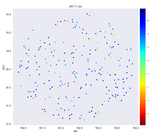


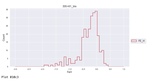




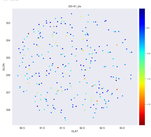
Plot EVN:3

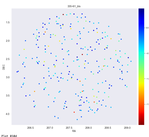




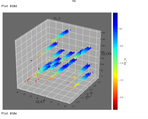


Plot EVN:3

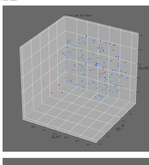


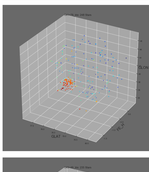


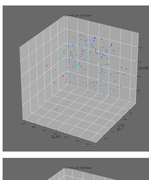
Plot EVN:

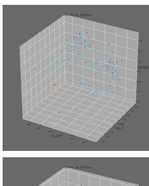


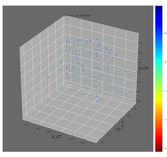
Plot EVN:

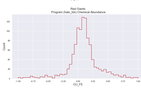


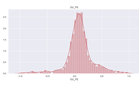


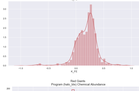


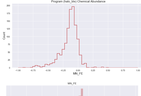


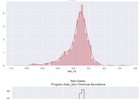

Fast Charts
Program chem_dec Chemical Abundance
GLON
GLAT
N_H2

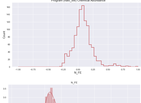


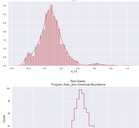


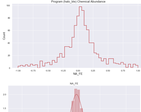


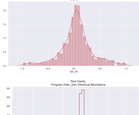


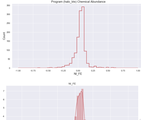


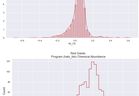


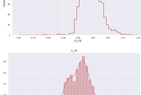


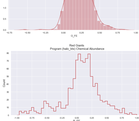


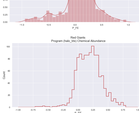


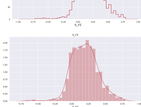


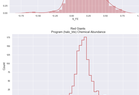


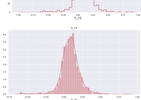


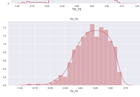


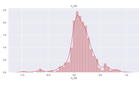


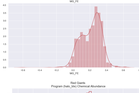


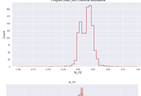


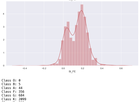


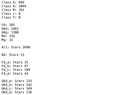













```
Class 0: 0
Class 1: 0
Class 2: 0
Class 3: 198
Class 4: 2892
Class 5: 2000
Class 6: 2000
Class 7: 0
Class 8: 0

Fe: 2892
SMA: 1962
Mn: 2000
Na: 198
Mg: 32

All Stars 5090

Ba: Stars 31

Fe_p: Stars 31
Fe_n: Stars 0
Fe_r: Stars 189
Fe_s: Stars 0

SMA_p: Stars 231
SMA_n: Stars 1962
SMA_r: Stars 0
SMA_s: Stars 236

Ung_p: Stars 229
Ung_n: Stars 2000
Ung_r: Stars 0
Ung_s: Stars 221

Mg_p: Stars 45
Mg_n: Stars 32
Mg_r: Stars 12
Mg_s: Stars 0

Na_p: Stars 0
Na_n: Stars 198
Na_r: Stars 0
Na_s: Stars 0

Fields: ['BIGID_dr1', 'RAD:FE_dr1', 'RAD:ND_dr1', 'RD:LOG_dr1', 'RD:SS_dr1',
'Class_dr1', 'Class_dr2', 'Class_dr3', 'Class_dr4', 'Class_dr5',
'Class_dr6', 'dMn:FE_dr1', 'dNa:FE_dr1', 'dMg:FE_dr1', 'dBa:FE_dr1']

Program: Kala_Eric

Done!

DONE!
```