```
Python 3.7.8 (default, Jun 24 2020, 07:20:10)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-44)] on linux
Type "help", "copyright", "credits" or "license" for more information.
IPython 7.2.0 -- An enhanced Interactive Python.

In [1]: runfile('/Users/juanpablorojas/Apogee Mg Target Program MR.py', wdir='/Users/juanpablorojas')
/Users/juanpablorojas/opt/anaconda3/bin/python

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* APOGEE_MAGNOR_G_R_B APOGEE_TARGET3 bit 4', 'APOGEE_TARGET3', 0)

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APOGEE_TARGET3_bit_0

No documentation found

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subsection= 35
sub_separator= 35
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sub_points (only_time)= 10363

No 1
Dim: 3
Min: 0.000
Max: 270
Mp: 4294

R_int Nmi: 9675.42
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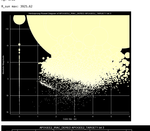

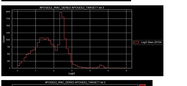

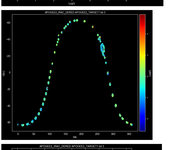

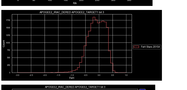

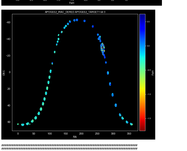


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==========================================================================
==========================================================================
1 SPHERES_BIGB_ZERED APHERES_TARGETS 6x1 4', SPHERES_TARGETS, 4)

APHERES_TARGETS_6x1_A

No documentation found

Frame: 0 ORB=0' ORB=90' ORB=45.5' ORB=22' ORB=67' ORB=68' ORB=90'
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ORB=0.0' ORB=0.0' ORB=0.0' ORB=0.0' ORB=0.0' ORB=0.0' ORB=0.0' ORB=0.0'
'0.0'=0.0' '0.0'=0.0' '0.0'=0.0' '0.0'=0.0' '0.0'=0.0' '0.0'=0.0' '0.0'
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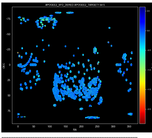


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==========================================================================

[ WFM2012_MW_SPEED WFM2012_TARGETS bin 0*, WFM2012_TARGETS, 0]

WFM2012_TARGETS_bin_0

No documentation found

Platids [ 9004-00-0* '9004-02' '9004-03-0*' ..., 'UNKOWN' 'VOEU' 'WX' ]

Stars: 12700

main_sequence: 0476
hasmag0: 4127
subgiants: 0
red_clumps: 0
red_giants: 0
red_giants - red_clumps: 147

Ra: 1044
Dec: 1044
Mag: 1044
Age: 1044
Mass: 0
Mp: 0
Nsamp: 1

R_eye_max: 1015.7
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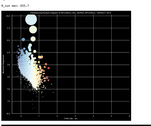

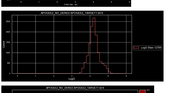

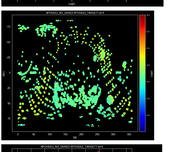

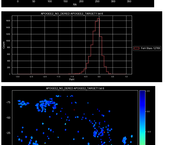

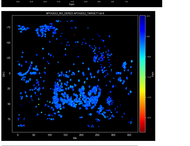


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[ WFM2012_MW_SPEED_CLUMP WFM2012_TARGETS bin 7*, WFM2012_TARGETS, 7]

WFM2012_TARGETS_bin_7

No documentation found

Platids [ '9004-00-0*' '9004-00-1*' '9004-00-2*' '9004-00-3*' '9004-00-4*'
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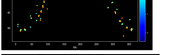

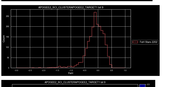

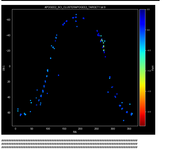

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{"MPANDIS_MERGER MPANDIS_TARGETS 6x3 10", "MPANDIS_TARGETS", 13}

MPANDIS_TARGETS_6x3_10

No documentation found

Fields: {"BBHA=0.0" "BBHA=0.5" "BBHA=1.0" "BBHA=10" "BBHA=50" "BBHA=100" "BBHA=1E3" "BBHA=1E4" "BBHA=1E5" "BBHA=1E6" "BBHA=1E7" "BCA=0" "BCA=1" "BCA=2" "BCA=3" "BCA=4" "BCA=5" "BCA=6" "BCA=7" "BCA=8" "BCA=9" "BCA=10" "BCA=11" "BCA=12" "BCA=13" "BCA=14" "BCA=15" "BCA=16" "BCA=17" "BCA=18" "BCA=19" "BCA=20" "BCA=21" "BCA=22" "BCA=23" "BCA=24" "BCA=25" "BCA=26" "BCA=27" "BCA=28" "BCA=29" "BCA=30" "BCA=31" "BCA=32" "BCA=33" "BCA=34" "BCA=35" "BCA=36" "BCA=37" "BCA=38" "BCA=39"

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[ '4PM0001_STREAM_NUMBER 4PM0001_TARGETS 6:0 20', '4PM0001_TARGETS', 10]

4PM0001_TARGETS_6:0_20

No documentation found

Fields: ['TRIGNAME=2' 'TRIGNAME=3']

Stats: 2

main_sequence: 2
synoptic: 0
subsystem: 0
cal_mode: 0
cal_pulses: 0
num_points: 0
num_flags: 0

Dec: 0
Hrs: 0
Min: 0
Sec: 0
Day: 0
Mon: 0
Yr: 0

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[ '4PM0001_STREAM_CAMEDGEMS 4PM0001_TARGETS 6:0 20', '4PM0001_TARGETS', 20]

4PM0001_TARGETS_6:0_20

No documentation found

Fields: ['BMPOSLIM=' 'GES:2' 'GES:3' 'GES:4' 'GES:5' 'GES:6' 'GES:7' 'GEPHAN:2'
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 'TRIGNAME=2' 'TRIGNAME=3' 'TRIGNAME=4' 'TRIGNAME=5']

Stats: 152

main_sequence: 204
synoptic: 0
subsystem: 52
cal_mode: 0
cal_pulses: 0
num_points: 156
num_flags: 305

Dec: 0
Hrs: 1
Min: 34
Sec: 17
Day: 0
Mon: 20

M_num_max: 3077.83
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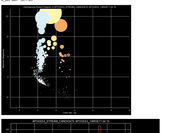

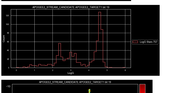

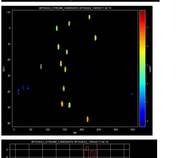

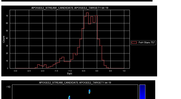

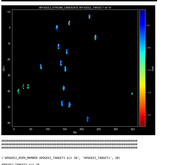


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[ '4PM0001_DUPN_NUMBER 4PM0001_TARGETS 6:0 20', '4PM0001_TARGETS', 30]

4PM0001_TARGETS_6:0_20

No documentation found

Fields: ['CAMERA' 'DMAGE' 'SCALPTORS' 'SDSTARS']

Stats: 64

main_sequence: 2
synoptic: 0
subsystem: 0
cal_mode: 0
cal_pulses: 0
num_points: 62
num_flags: 62

Dec: 0
Hrs: 0
Min: 0
Sec: 0
Day: 0
Mon: 0
Yr: 0

M_num_max: 302.76
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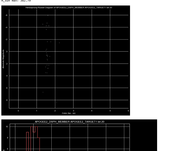

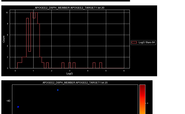

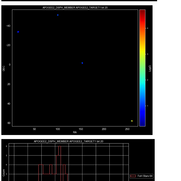

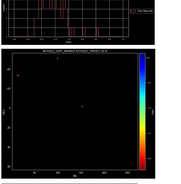


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[ '4PM0001_DUPN_CAMEDGEMS 4PM0001_TARGETS 6:0 21', '4PM0001_TARGETS', 21]

4PM0001_TARGETS_6:0_21

No documentation found

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Stats: 48

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subsystem: 2
cal_mode: 0
cal_pulses: 0
num_points: 0
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Yr: 0

M_num_max: 3473.24
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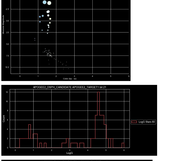

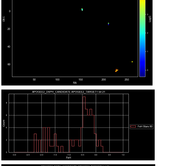

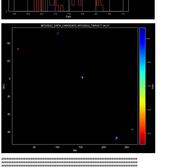


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[ '4PM0001_MAGLLOGS_NUMBER 4PM0001_TARGETS 6:0 21', '4PM0001_TARGETS', 22]

4PM0001_TARGETS_6:0_21

No documentation found

Fields: ['LOG:'0:0:0' '0:0:0:0' '1900:10:0' '1901:10:0' '1902:10:0' '1903:10'
 '1904:10' '1905:10' '1906:10' '1907:10' '1908:10' '1909:10']

Stats: 145

main_sequence: 2
synoptic: 0
subsystem: 0
cal_mode: 0
cal_pulses: 0
num_points: 0
num_flags: 142

Dec: 0
Hrs: 0
Min: 0
Sec: 0
Day: 0
Mon: 0
Yr: 0

M_num_max: 5315.18
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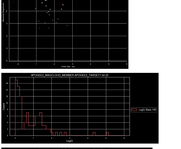

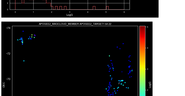

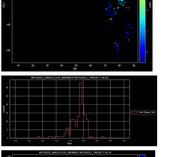

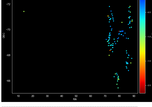

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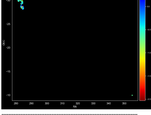
1 WMO02:MAGLOBA:GMDSWPX WMO02:TWRAFT 6:1 24 , WMO02:TWRAFT, 23

WMO02:TWRAFT_6:1_23

No documentation found

Platlon: ["CITN-56-0" "CHS-15-0.TEO" "CHS-15-0.TEO" "ETOT" "ETOT" "LMT01" "LMT01" "LMT01



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UPPER(2,APPARAT_SIMP) APPARAT_TARGET1 bit 27, UPPER(2,TARGET1, 27)

UPPER(2,TARGET1,bit_27)

No documentation found

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 "ERR_ATN:U1" "ERC_ATT:U1" "ERR_ATT:U4" "ERR_ATI:U1" "ERC_ATI:U1"
 "ERR_ATR:U1" "ERC_ATR:U1" "ERR_ATP:U1" "ERC_ATP:U1" "ERR_ATY:U1"
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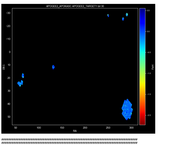
MPHOEX2_EXTERNAL_CALIB_MPHOEX2_TARGET1 0.0
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Z
X
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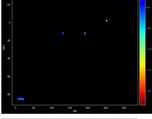
X
Y
Z
X



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* WPHASE2_DIVA_SUBTRACTING_PMM WPHASE2_TWHAT2 bin 7', 'WPHASE2_TWHAT2', 7:

WPHASE2_TWHAT2_bin_7

No documentation found

Files: 1'180:24.bin' '1230:24.bin' '1254:27.bin' '1414:01.bin' '1424:28.bin'
'1434:55.bin' '1445:22.bin' '1455:49.bin' '1506:16.bin' '1516:43.bin' '1527:10.bin'
'1538:38.bin' '1548:05.bin' '1558:32.bin' '1609:00.bin' '1619:27.bin'
'1629:54.bin' '1640:21.bin'

Starts: 28

main_sequences: 0
hasphi: 0
hasphi2: 0
nsplitmode: 0
nsplitmode2: 0
ndata: 1
ndata2: 1
nsplitpoints: 0
nsplitpoints2: 0
nsplitpoints2: 0
nsplitpoints2
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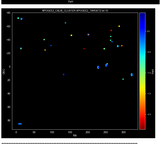

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0 MPS0001_LITERATURE_DELB MPS0001_TARGET0 bin 17, "MPS0001_TARGET0", 131-

MPS0001_TARGET0_bin_17

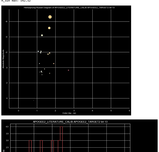
No documentation found

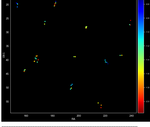
Fields: ['LMLA' 'LMLB' 'LMLD' 'MLC' 'MLE' 'NLMLA' 'SMLE']

Stats: 32

main_separator: 1
hunpoint: 0
subgroups: 0
red_clamp: 0
red_clamp: 0
red_clamp: red_clamp: 24

Min: 0
Max: 0
Mean: 0
Sdev: 0
Min: 0
Max: 0
N_var_max: 741.52





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C:\PROGES_MAIN_CAMBIOSAFE\ APROGES_TWRAFTS b21 21\, "APROGES_TWRAFTS", 211

APROGES_TWRAFTS_b21_21

No documentation found

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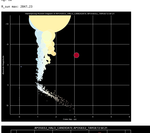
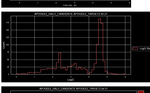
Stats: 1211

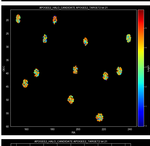
mesh_subsection: 576
numpoint: 576
subpoints: 35
numpolys: 1211
real_points: 541
real_polys: 1211, real_time: 420

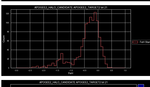
Min: 0
Max: 1000
Min: 1000
Max: 1000
Min: 1000
Max: 1000

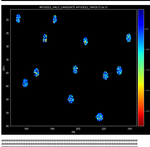
N_sym max: 2047.11











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C:\PROGES_MAIN_BACKUP_LIMPIO\ APROGES_TWRAFTS b21 21\, "APROGES_TWRAFTS", 215

APROGES_TWRAFTS_b21_21

No documentation found

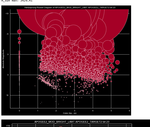
Plotting: {"BCN_ABS", "BCN_LIT", "BCN_LIT_ABS", "BCN_LIT_ABS_ABS", "BCN_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_ABS", "BCN_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT", "BCN_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT_ABS_LIT"}

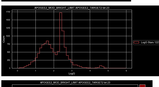
Stats: 1214

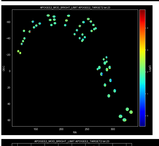
mesh_subsection: 207
numpoint: 207
subpoints: 35
numpolys: 1214
real_points: 172
real_polys: 1214, real_time: 8540

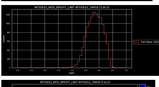
Min: 0
Max: 0
Min: 2000
Max: 2000
Min: 0
Max: 1000

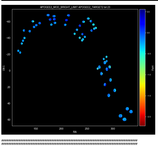
N_sym max: 3425.12











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C:\PROGES_CLIS APROGES_TWRAFTS b21 24\, "APROGES_TWRAFTS", 241

APROGES_TWRAFTS_b21_24

No documentation found

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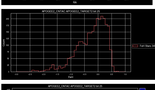

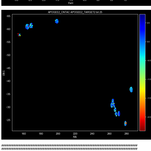

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1 AFSR02CL_FCC_AVA_DAMP AFSR02CL_TMPERTU Alt 27., 'AFSR02CL_TMPERTU', 27.

AFSR02CL_TMPERTU_Alt_27

No documentation found

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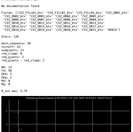
'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'GMAQ7')

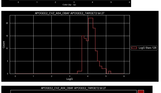
Stars: 128

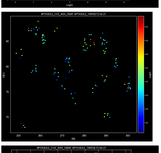
main_separator: 50
hunpoff: 0(s)
hunpoint: 0
rmd_index: 0
rmd_points: 0
rmd_points: - rmd_flag: 2

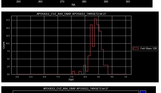
Ok: 0
Ok: 0
Ok: 0
Ok: 0
Ok: 0
Ok: 0

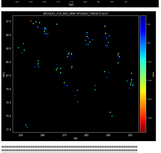
N_cut max: 5.58











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1 AFSR02CL_FCC_AVA_DAMP AFSR02CL_TMPERTU Alt 28., 'AFSR02CL_TMPERTU', 28.

AFSR02CL_TMPERTU_Alt_28

No documentation found

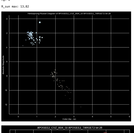
Filter: ('FCC_FTLLAT_Alt' 'FCC_FTLLAT_Alt' 'FCC_FTLLAT_Alt' 'FCC_DBRL_Alt'
'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt'
'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt')

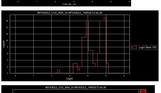
Stars: 125

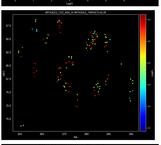
main_separator: 50
hunpoff: 0(s)
hunpoint: 0
rmd_index: 0
rmd_points: 0
rmd_points: - rmd_flag: 5

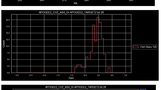
Ok: 0
Ok: 0
Ok: 0
Ok: 0
Ok: 0

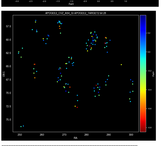
N_cut max: 13.82











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1 AFSR02CL_FCC_AVA_FTL AFSR02CL_TMPERTU Alt 29., 'AFSR02CL_TMPERTU', 29.

AFSR02CL_TMPERTU_Alt_29

No documentation found

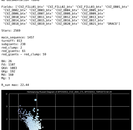
Filter: ('FCC_FTLLAT_Alt' 'FCC_FTLLAT_Alt' 'FCC_FTLLAT_Alt' 'FCC_DBRL_Alt'
'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt'
'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'GMAQ7')

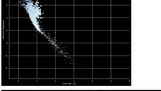
Stars: 2569

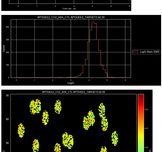
main_separator: inf
hunpoff: 0(s)
hunpoint: 0
rmd_index: 0
rmd_points: 0
rmd_points: - rmd_flag: 59

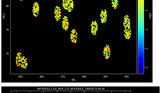
Ok: 0
Ok: 0
Ok: 1983
Ok: 0
Ok: 0
Ok: 0

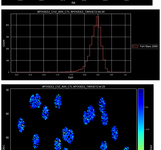
N_cut max: 21.42











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1 AFSR02CL_FCC_AVA_FTL AFSR02CL_TMPERTU Alt 30., 'AFSR02CL_TMPERTU', 30.

AFSR02CL_TMPERTU_Alt_30

No documentation found

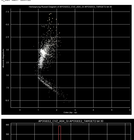
Filter: ('BRFL_FLTAL_Alt' 'BRFRR' 'FCC_FTLLAT_Alt' 'FCC_FTLLAT_Alt'
'FCC_FTLLAT_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt' 'FCC_DBRL_Alt'
'FCC_DBRL_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt' 'FCC_DBRR_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt'
'FCC_DRLR_Alt' 'FCC_DRLL_Alt' 'FCC_DRLR_Alt' 'FCC_DRLL_Alt')

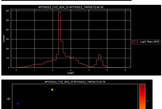
Stars: 2918

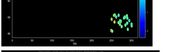
main_separator: 250
hunpoff: 0(s)
hunpoint: 0(s)
rmd_index: 0
rmd_points: 0
rmd_points: - rmd_flag: 1730

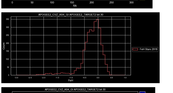
Ok: 0
Ok: 0
Ok: 0
Ok: 1983
Ok: 0
Ok: 120

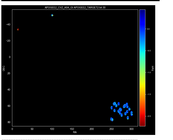
N_cut max: 600.00









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================================================================
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( APOGEE2_AIR: APOGEE2_TARGETS bit #', 'APOGEE2_TARGETS', 4)

APOGEE2_TARGETS_bit_4

No documentation found

Flags: ['TWO_BRIGHT' 'NEB_BYE=10' 'NEB_BYE=15' 'KIE_BYE=10' 'KIE_BYE=18' 'MATRIX']

Stars: 874

main_sequence: 525
giants: 349
subgiants: 32
rgb_giants: 0
red_giants: 0
red_giants + red_clump: 43

Dec: 0
Vrad: 0
Vscatter: 0
Vmax: 0
Mass: 0
Mag: 0

m_and_mass: 75.49
```

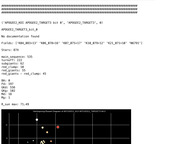

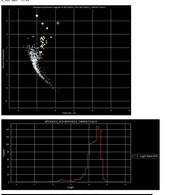

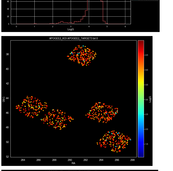

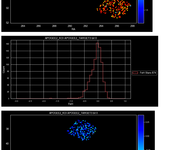

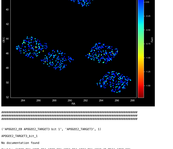


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================================================================
================================================================

( APOGEE2_AIR: APOGEE2_TARGETS bit 1', 'APOGEE2_TARGETS', 1)

APOGEE2_TARGETS_bit_1

No documentation found

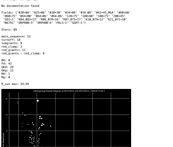
Flags: ['BRIGHT' 'NEB=200' 'EBV=0.05' 'EBV=0.08' 'EBV=0.09' 'SEC=0.05_BRA' 'NEB=60'
'NEB=100' 'NEB=150' 'NEB=200' 'NEB=300' 'NEB=400' 'NEB=500' 'NEB=600'
'NEB=1' 'NEB_BRIGHT' 'NEB_BYE=10' 'NEB_BYE=15' 'KIE_BYE=10' 'KIE_BYE=18'
'SEC=0.05' 'SEC=0.05_BRA' 'SEC=1' 'SEC=1.5']

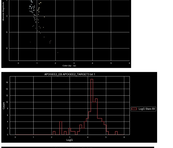
Stars: 90

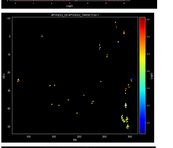
main_sequence: 51
giants: 39
subgiants: 0
rgb_giants: 0
red_giants: 0
red_giants + red_clump: 0

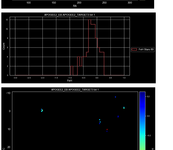
Dec: 0
Vrad: 0
Vscatter: 0
Vmax: 0
Mass: 0
Mag: 0

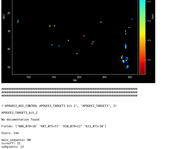
m_and_mass: 34.94
```












```
================================================================
================================================================

( APOGEE2_AIR_CONTROL: APOGEE2_TARGETS bit 2', 'APOGEE2_TARGETS', 2)

APOGEE2_TARGETS_bit_2

No documentation found

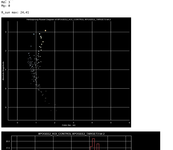
Flags: ['TWO_BRIGHT' 'KIE_BYE=10' 'KIE_BYE=18']

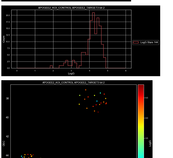
Stars: 144

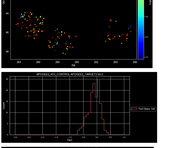
main_sequence: 80
turnoff: 51
giants: 13
subgiants: 0
rgb_giants: 0
red_giants: 0
red_giants + red_clump: 18

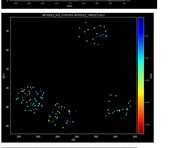
Dec: 0
Vrad: 0
Vscatter: 0
Vmax: 0
Mass: 0
Mag: 0

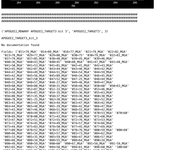
m_and_mass: 25.41
```









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================================================================

( APOGEE2_DRAWN: APOGEE2_TARGETS bit 2', 'APOGEE2_TARGETS', 2)

APOGEE2_TARGETS_bit_2

No documentation found

Flags: ['2MASS_RED' 'GDR18_BRIGHT' 'GDR18_FAINT' 'GC=15_MAG' 'GC=20_MAG'
'GC=25_MAG' 'GC=30_MAG' 'GC=35_MAG' 'GC=40_MAG' 'GC=45_MAG'
'GC=50_MAG' 'GC=55_MAG' 'GC=60_MAG' 'GC=65_MAG' 'GC=70_MAG'
'GDR=30_MAG' 'GDR=35_MAG' 'GDR=40_MAG' 'GDR=45_MAG' 'GDR=50_MAG'
'GDR=55_MAG' 'GDR=60_MAG' 'GDR=65_MAG' 'GDR=70_MAG' 'GDR=75_MAG'
'GDR=80_MAG' 'GDR=85_MAG' 'GDR=90_MAG' 'GDR=95_MAG' 'GDR=100_MAG'
'GDR=105_MAG' 'GDR=110_MAG' 'GDR=115_MAG' 'GDR=120_MAG' 'GDR=125_MAG'
'GDR=130_MAG' 'GDR=135_MAG' 'GDR=140_MAG' 'GDR=145_MAG' 'GDR=150_MAG'
'GDR=155_MAG' 'GDR=160_MAG' 'GDR=165_MAG' 'GDR=170_MAG' 'GDR=175_MAG'
'GDR=180_MAG' 'GDR=185_MAG' 'GDR=190_MAG' 'GDR=195_MAG' 'GDR=200_MAG'
'GDR=205_MAG' 'GDR=210_MAG' 'GDR=215_MAG' 'GDR=220_MAG' 'GDR=225_MAG'
```
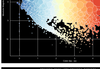
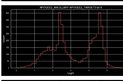
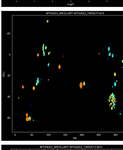
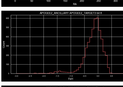
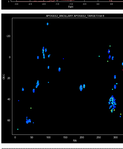

APOGEE_MERGED_APOGEE_TARGETS.fit
Left Mass Cut











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* APOGEE2_MASSIVE_STAR APOGEE2_TARGETS bit 9', 'APOGEE2_TARGETS', 9)

APOGEE2_TARGETS_bit_9

No documentation found

Paths: []

Shers: 0

```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 0
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0

---

* DSS1 APOGEE2_TARGETS bit 10 APOGEE2_TARGETS bit 10', 'APOGEE2_TARGETS', 10)

APOGEE2_TARGETS_bit_10

DSS1

Shers 12

Obs: 21, Alpha=12 (GAMA2DEC)
A selection of high-redshift quasars (z>2.2-2.8) by Anton's MB-DEEC2 mission within one the main-SDSS footprint. Anton's MB-DEEC2 mission selection:
Starting with all sources in SDSS quasars that have an entry in the range 2.0<z<3.5 in the
Shen et al. 2011 catalog, we select 5,000 sources that have a photometric redshift
However, only 20,000 sources have W-band flux measurements from WISE2.
Of these, 10,000 sources have W-band flux measurements from WISE2 and optical measurements
and have SDSS Magnitudes only because with WISE2 and optical magnitudes of sources
Finally, we select 5,000 sources with WISE2 and optical magnitudes of sources
Orientation, we adopted the W-band magnitude detected within the SDSS or estimated from a band SDSS measurements to be z 20 mag.
The SDSS-DR9 Data Release Quasar Catalog (DR9Q) contains 87,822 quasars.
Targets are prioritized by W-band magnitude.

Paths: []

Shers: 0

```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 0
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0

---

* Tsamis APOGEE2_TARGETS bit 11', 'APOGEE2_TARGETS', 11)

APOGEE2_TARGETS_bit_11

Cepheids

Shers 1

Obs: 0, Alpha=0 (NEIGH(Tsamis)
A set of Galactic Cepheids throughout the disk, to obtain multi-species abundances,
Tsamis et al. (2011) have compiled a sample of Galactic Cepheids with accurate distances
based on JHKTABVRI, constructed to those stars of metal-rich and metal-poor
The APOGEE Cepheid sample is a subset of the Tsamis et al. (2011) sample
The APOGEE Cepheid sample is further restricted to those stars with H magnitudes between 5.5 and 12
(to avoid saturation and to ensure high S/N in the APOGEE spectra, even for the most distant and reddened
Metal-poor stars with periods longer than seven days are expected to show a Mira-like variability characteristic,
Observers also provide two time series maps were included in the Target selection to increase overlap with the Kepler(Tsamis et al. (2011).

Paths: ['RED-BAT' 'RED0BT']

Shers: 2

```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 2
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0

---

* Time Extinction Disk APOGEE2_TARGETS bit 12', 'APOGEE2_TARGETS', 12)

APOGEE2_TARGETS_bit_12

Time_Extinction_Disk

Shers 500

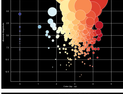
Obs: 0, Mapp=(University of Virginia)
A sample of extinction stars in intermediate windows, to sample the far reaches of the Milky Way's disk.
Mapping the Galaxy's dust is important for understanding the nature of the field for dust detail (Tsamis et al.
This AB is compiled from Marshall et al. (2006)'s 3D extinction map, using linear interpolation in the distance and assuming RV (-RV= A-B-V) A-B(1).
Stars with colors and magnitudes in the ranges 0.5<(J-K)<1.5 and 7<K<14 are selected from the 2MASS Point Source Catalog, and are assigned distances
estimated targets are selected by selecting stars with (J-K) > 0.5 + E(B-V)*0.6 and J < 14 + 5*E(B-V)
Stars with colors and magnitudes in the ranges 0.5<(J-K)<1.5 and 7<K<14 are selected from the 2MASS Point Source Catalog, and are assigned distances
1.5 (Rv) and 1.5 A0> Assignment Paths and Flagges, but not re-observed.

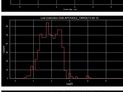
Paths: ['RZ7-A0' 'RZ0-A0' 'R3A-A0' 'RE3-A0']

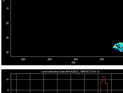
Shers: 462

```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 462
red_giants: red_clump: 500
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0







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* Tension Line Stars APOGEE2_TARGETS bit 13', 'APOGEE2_TARGETS', 13)

APOGEE2_TARGETS_bit_13

APOGEE2_TARGETS_bit_13

Tension_Line_Stars

Shers 20

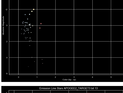
Obs: 0, Mapp=(Sloan Mapping Paths Sensorsite)
This program obtains multi-band spectroscopy of a variety of M-type emission line stars, including several rare subtypes.
Emission line stars are selected from the Sloan Digital Sky Survey spectroscopic database.
Thus, an emission-line-selected sample of known M0 emission-line stars via SDSS, NESSR catalogs, and papers.
Stars are selected from the Sloan Digital Sky Survey spectroscopic database, including spectral types and IMAGE magnitudes.
For stars with available H-magnitudes, we checked the literature and attempted to sort by subtype, e.g.,
Stars with H-band magnitudes fainter than 12 were not observed.
Rare and unusual M subtypes were targeted first, followed by the six members of M67 M35.

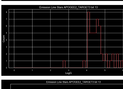
Paths: ['I35-A0' 'AM1BAR-0']

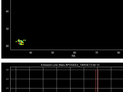
Shers: 49

```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 1
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0
Mass: 0
Mass: 0







---

* Moving Groups APOGEE2_TARGETS bit 14', 'APOGEE2_TARGETS', 14)

APOGEE2_TARGETS_bit_14

Moving_Groups

Shers 1

Obs: 0, Alpha= (Universidad Nacional Autónoma de México)
Members of Moving Young Moving Groups, to characterize the groups and to generate high-quality young stellar spectral templates.
We made an effort, carrying out looking at currently known members of Moving Young Moving Groups, combining more than 2000 stars across the sky.
Moving Young Groups are defined as groups of stars with similar kinematics, chemical composition and age, and are gravitationally unbound.
We also selected M-dwarfs with (J-H) > 0.2 mag and (J-K) > 0.3mag, to span of spectral types, to be observed with the APOGEE for following.

Paths: ['TYC2BAG-1']

Shers: 28

```
mask_sequence: 1
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 0
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0
Mass: 0
Mass: 0

---

* Populations in M67/M35 APOGEE2_TARGETS bit 15', 'APOGEE2_TARGETS', 15)

APOGEE2_TARGETS_bit_15

APOGEE2_TARGETS_bit_15

Populations_in_M67/M35

Shers 0

Obs: 0, Spitzer (Universidad de Concepción)
Stars in open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE Open Cluster Survey (APOGEE-OCS) is a survey of open clusters, to study the
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements
Stars in open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements
Open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements
Open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements

Paths: ['F5ZL-A7S-G0']

Shers: 48

```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 0
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0
Mass: 0
Mass: 0

---

* Transition Stars APOGEE2_TARGETS bit 16', 'APOGEE2_TARGETS', 16)

APOGEE2_TARGETS_bit_16

APOGEE2_TARGETS_bit_16

Transition_Stars

Shers 0

Obs: 0, Alpha= (Universidad Nacional Autónoma de México)
Members of Moving Young Moving Groups, to characterize the groups and to generate high-quality young stellar spectral templates.
We made an effort, carrying out looking at currently known members of Moving Young Moving Groups, combining more than 2000 stars across the sky.
Moving Young Groups are defined as groups of stars with similar kinematics, chemical composition and age, and are gravitationally unbound.
We also selected M-dwarfs with (J-H) > 0.2 mag and (J-K) > 0.3mag, to span of spectral types, to be observed with the APOGEE for following.

Paths: ['TYC2BAG-1']

Shers: 28

```
mask_sequence: 1
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 0
```

Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0
Mass: 0
Mass: 0

---

* Populations in M67/M35 APOGEE2_TARGETS bit 17', 'APOGEE2_TARGETS', 17)

APOGEE2_TARGETS_bit_17

APOGEE2_TARGETS_bit_17

Populations_in_M67/M35

Shers 0

Obs: 0, Spitzer (Universidad de Concepción)
Stars in open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE Open Cluster Survey (APOGEE-OCS) is a survey of open clusters, to study the
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements
Stars in open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements
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Open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
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The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements
Open clusters are ideal for stellar populations in the unusual open cluster M67 NGC 6791, by targeting several dozen member stars,
The APOGEE-OCS will provide unprecedented, high-S/N, high-R spectra obtained spectrally by Spitzer of all, (2011) that meet our S/N requirements

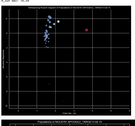
Paths: ['F5ZL-A7S-G0']

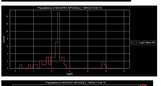
Shers: 48

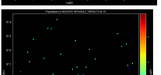
```
mask_sequence: 0
nshers: 0
subgroups: 0
red_clump: 0
n_members: 0
red_giants: red_clump: 0
```

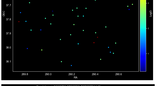
Obs: 0
Stars: 0
Ages: 0
Dists: 0
Maps: 0
Mass: 0
Mass: 0

row_index: 19
row_offset: 0
row_count: 19
row_limit: 33
Obs: 0
Vars: 0
nobs: 0
nvar: 0
Mem: 0
Max: 0
Max: 0
N_out_max: 76,50









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2 External Cameras Calibrators WPB0023_TARGETS Act 10', 'WPB0023_TARGETS', 16)

WPB0023_TARGETS_Act_10

WPB0023_TARGETS_Act_10

External_Cameras_Calibrators

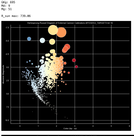
Stars: 1453

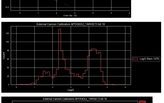
Pi: M. M. Nees (Columbia University)
A sample of stars from Tilt 10 parameter space for a Camera tracking and and increase the calibration overlap with other surveys.

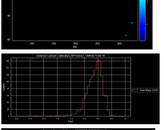
Fields: ['RMA-BW' 'RMA-NW' 'RMA-NE' 'CER-SW' 'CER-SE' 'CERES' 'CERES' 'CERES' 'CERES' 'ALCA' 'ALCA' 'ALCA' 'ALCA' 'ALCA']

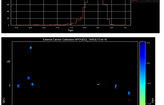
Stars: 1278

main_separator: 254
subsets: 0
subsets: 10
subsets: 20
row_offset: 0
row_count: 254
row_limit: 532
Obs: 0
Vars: 0
nobs: 0
nvar: 0
Mem: 0
Max: 0
Max: 0
N_out_max: 770,40









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7 Faint Astrometrucs Scanns WPB0023_TARGETS Act 17', 'WPB0023_TARGETS', 17)

WPB0023_TARGETS_Act_17

WPB0023_TARGETS_Act_17

Faint Astrometrucs Scanns

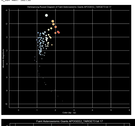
Stars: 317

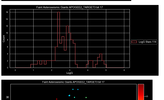
Pi: M. Pinsonneault (The Ohio State University)
A sample of faint Keplerr Targets with astrometrucs measurements to probe stars at further distances in the halo.

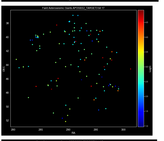
Fields: ['KEC-BTC-NE' 'KEC-BTC-NW' 'KEC-BTC-SW' 'KEC-BTC-SE' 'KEC-BTM-SW' 'KEC-BTM-SE' 'KEC-BTM-NE' 'KEC-BTM-NW' 'KEC-BTM-N1' 'KEC-BTM-N2' 'KEC-BTM-N3' 'KEC-BTM-N4' 'KEC-BTM-N5' 'KEC-BTM-N6' 'KEC-BTM-N7' 'KEC-BTM-N8' 'KEC-BTM-N9' 'KEC-BTM-N10' 'KEC-BTM-N11' 'KEC-BTM-N12' 'KEC-BTM-N13' 'KEC-BTM-N14' 'KEC-BTM-N15' 'KEC-BTM-N16' 'KEC-BTM-N17' 'KEC-BTM-N18']

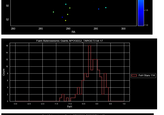
Stars: 114

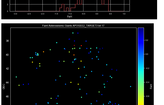
main_separator: 71
subsets: 0
subsets: 0
row_offset: 0
row_count: 71
row_limit: 77
Obs: 0
Vars: 0
nobs: 0
nvar: 0
Mem: 0
Max: 0
Max: 0
N_out_max: 340,70











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3 Star-Forming Complex in WCA/S WPB0023_TARGETS Act 10', 'WPB0023_TARGETS', 10)

WPB0023_TARGETS_Act_10

WPB0023_TARGETS_Act_10

Star-Forming Complex in WCA/S

Stars: 1806

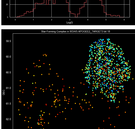
Pi: Kevin Covey (Universidad de La Serena)
A sample of candidate O, massive stars in the WCA, WN, and WC star-forming regions.
The massive star sample was selected from a combination of near- to mid-infrared color-magnitude (CMD) and color-color (CCD) selection criteria,
the optical counterparts were then cross-matched with Gaia DR2.
The optical counterparts were then cross-matched with known OB stars, using the SIMBAD database together with the catalogs of spectral classification of stars
from Maiz Apellaniz et al. (2016).
The FIR sources were selected based on two different approaches:
(1) Cross-matching with the Herschel Hi-GAL catalog of compact sources, where available, to identify probable young star members.

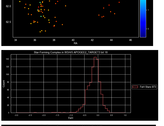
Transitional, Massive and Young Longwave of Hi-GAL
(Class I sources likely embedded protostars with large OB masses);
(2) Cross-matching with the Herschel Hi-GAL catalog of Extended Green Objects; and
(3) Cross-matching with the catalog of Infrared Dark Cloud Candidates, having had their distances
estimated by Ellsworth-Bowers et al. (2015).
Target and selection based on a kinematic distance cut of 10 kpc (distances estimated by Reid et al. (2016), Zhang & Alves (2021), and Chauhan et al. (2021)
for WCA, and distances based on Gaia DR2 for WN and WC).
Target and selection based on a kinematic distance cut of 10 kpc (distances estimated by Reid et al. (2016), Zhang & Alves (2021), and Chauhan et al. (2021)
for WCA, and distances based on Gaia DR2 for WN and WC).

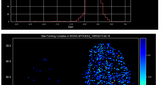
Fields: ['CIG-WN' 'WC-W' 'WC' 'WCA']

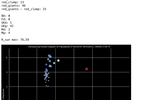
Stars: 872

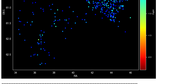
main_separator: 228
subsets: 0
subsets: 10
subsets: 20
row_offset: 0
row_count: 885
row_limit: 888
Obs: 100
Vars: 0
nobs: 0
nvar: 0
Mem: 0
Max: 0
Max: 0
N_out max: 2512,23











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"Evolved Stars APOGEE2_TARGETS bit 19", "APOGEE2_TARGETS", 19:

APOGEE2_TARGETS_bit_19

APOGEE2_TARGETS_bit_19

Evolved Stars

Stars 19

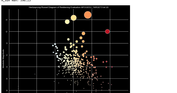
PI: G. Stringfellow (University of Colorado, Boulder)
Evolved stars are a key component of stellar populations, to understand the variability of their emission line spectra, the focus of this project is massive, high-luminosity stars with early spectral types.
We will use the APOGEE spectra to measure the radial velocities of the stars, to see if they are in binary systems.
We used Simbad and the online Gaia DR2 Report form catalog to select targets on APOGEE fields.
We will use the Gaia DR2 data to see if the stars are in a dense part of the Galaxy, with a high extinction, with an emphasis on observing all visits to study the spectral variability of the stars.

Fields: ["EVA-DR2"]

Stars: 2

mean_apogeeh: 8
nvisits: 6
totexptime: 8
ngoodvisits: 6
ngoodpix: 6
rv_teff_plane: rv_teff_plane: 1

Dec: 8
Gal_b: 8
Gal_l: 8
Glat: 8
Glon: 8
H: 8
Vmag: 8



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"Reddening Evaluation APOGEE2_TARGETS bit 20", "APOGEE2_TARGETS", 20:

APOGEE2_TARGETS_bit_20

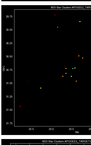
APOGEE2_TARGETS_bit_20

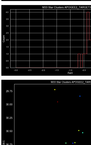
Reddening Evaluation

Stars 400

PI: G. Schiefr (Leibniz Rechenzentrum National Laboratory)
Dust extinction maps are a powerful tool to study the interstellar medium of hundreds of thousands of stars covering a large fraction of the Galactic disk. Spectra in large spectral datasets like the APOGEE survey are also probes of the dust distribution law and its variation with the Galactic environment (spatial variation).
However, the APOGEE survey contains only few appropriate targets near
Galactic sightlines with a high extinction gradient.
Therefore, we propose to observe additional targets.
Alternatively, the interpretation of the APOGEE spectra in regions where reddening measurements cannot be connected to the few regions where the extinction law is well known, is a challenging task. Additional observations of stars in regions with well known reddening measurements would be very helpful.
To determine the dust extinction we plan to observe stars with known brightness and behind molecular clouds in the solar neighborhood.
These data are crucial for the full exploitation of the APOGEE survey to derive the extinction and its variation in the Galaxy.

Fields: ["2M-22-21", "NGC6819", "NGC6866-6", "NGC6866-7", "NGC6866-8", "NGC6866-9", "NGC6866-10", "NGC6866-11", "NGC6866-12", "M67", "M67-2", "M67-3", "M67-4", "M67-5", "M67-6", "M67-7", "M67-8", "M67-9", "M67-10", "M67-11", "M67-12", "M67-13", "M67-14", "M67-15", "M67-16", "M67-17", "M67-18", "M67-19", "M67-20", "M67-21", "M67-22", "M67-23", "M67-24", "M67-25", "M67-26", "M67-27", "M67-28", "M67-29", "M67-30", "M67-31", "M67-32", "M67-33", "M67-34", "M67-35", "M67-36", "M67-37", "M67-38", "M67-39", "M67-40", "M67-41",





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! Latest Mass Stars & Brown Dwarfs APOGEE2_TARGET1 bit 20', 'APOGEE2_TARGET1', 20)

APOGEE2_TARGET1_bit_20

Stars 0

Latest Mass Stars & Brown Dwarfs

PI: M. Bergman (University of California-San Diego)
This program aim to build an APOGEE-based spectral library for late-M and L dwarf stars.
Selection Criteria:
Using, as a baseline, the well-studied M-dwarf spectroscopic sample from Bergman et al. (2020), we
will observe M-dwarf candidates with Gaia DR2 G-band magnitudes fainter than G=16 and brighter than G=18.
We select sources with spectral types later than M9 and 12.0 < G-W2 [AB] < 13.5 mag.
The spectroscopic sample will be used to characterize the chemical properties of ultracool dwarfs
with and has towards improving the characterization of ultracool low-mass historical engineered host systems.

Fields: 2'115+04,M9p4'

Stars: 2

main_sequence: 0
subgiants: 0
giants: 0
red_clump: 0
red_giants: 0
red_giants - red_clump: 0

Mg: 0
Si: 0
Ca: 0
Mn: 0
Ni: 0
Fe: 0

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! Distant Red Giants APOGEE2_TARGET1 bit 25', 'APOGEE2_TARGET1', 25)

APOGEE2_TARGET1_bit_25

APOGEE2_TARGET1_bit_25

Distant Red Giants

Stars 0

PI: T. Sanders (Max-Planck-Institute for Astronomy)
Many red giant stars have been observed with APOGEE but are absorbed into and expanded upon for the Bright Time Extension sub-program with the same aims.

Fields: 11

Stars: 0

main_sequence: 0
subgiants: 0
giants: 0
red_clump: 0
red_giants: 0
red_giants - red_clump: 0

Mg: 0
Si: 0
Ca: 0
Mn: 0
Ni: 0
Fe: 0

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! Mapping the Inner Galaxy APOGEE2_TARGET1 bit 26', 'APOGEE2_TARGET1', 26)

APOGEE2_TARGET1_bit_26

APOGEE2_TARGET1_bit_26

Mapping the Inner Galaxy

Stars 34

PI: L. Zoccali (Max-Planck-Institut für Astronomie)
The Mapping the Inner Galaxy program will provide a comprehensive map of Cepheids throughout the Galaxy,
both to understand better the galactic radial gradients, and to make a map of the "bumpy" stellar disk,
which is expected to be perturbed by the recently discovered Sagittarius Cepheid (Dekany, and Hill, ATel no.7)
or spectroscopically obtained and classification.
It fits the dynamics and the detailed chemical composition of the young galactic disk with unprecedentent Cepheids.

Fields: 1'0+02,M0'-'0+0,M0'

Stars: 1

main_sequence: 0
subgiants: 0
giants: 0
red_clump: 0
red_giants: 0
red_giants - red_clump: 1

Mg: 0
Si: 0
Ca: 0
Mn: 0
Ni: 0
Fe: 0

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! Selected Area 57 APOGEE2_TARGET1 bit 27', 'APOGEE2_TARGET1', 27)

APOGEE2_TARGET1_bit_27

APOGEE2_TARGET1_bit_27

Selected Area 57

Stars 995

PI: G. Majewski (University of Virginia)
Selected Area 57 (SA57) is the central field of Kapteyn's Selected Areas to the North Galactic Pole. SA57
is a well-studied field with a variety of ancillary data and photometry available for stellar work and beyond.
Because of its minimal stellar foreground, SA57 has traditionally played a significant role in a variety of extragalactic studies,
including the study of the Milky Way halo, the Magellanic Stream, and the Andromeda and Triangulum galaxies and beyond.
SA57 has rich multi-band photometry, including extensive photometry, astrometry, and spectroscopy.
Fields: 2'0+27,M0'-'0+27,M0'
The APOGEE observations here are intended to his state-of-the-art chemistry of giant stars in this direction
to study the chemical evolution of the outer disk and halo of the Milky Way.
* In the full figure of selecting descriptions is in the
* Selected Area 57 (SA57) is the central field of Kapteyn's Selected Areas to the North Galactic Pole. SA57
Field, Select "Select subset" stars to be 0 < E(B-V) < 0.1 mag.
Selection Criteria: Using, as a baseline, the well-studied 0.0 mag in areas where bad stellar overlap,
carefully, Consider "long subset" stars from spec = 1.0-2.0 mag for the central area where all four photo overlap.

Fields: 2'0+02,M0'-'0+0,M0'-'0+0,M0'-'0+0
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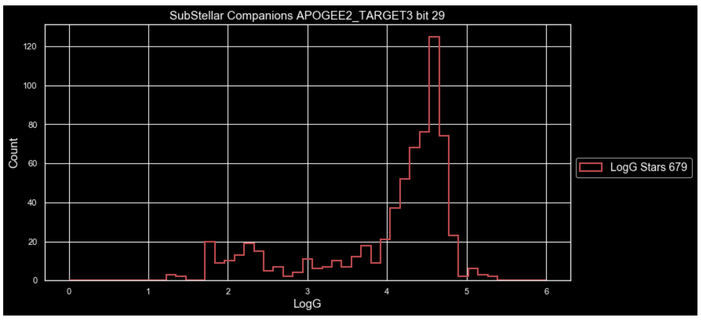

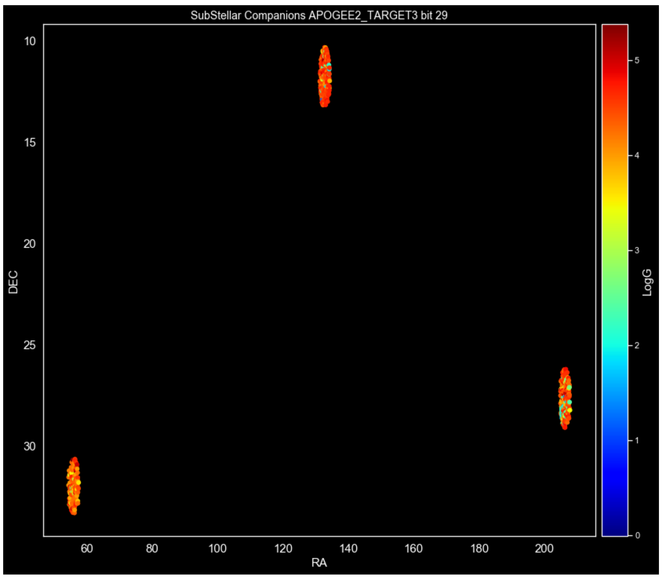

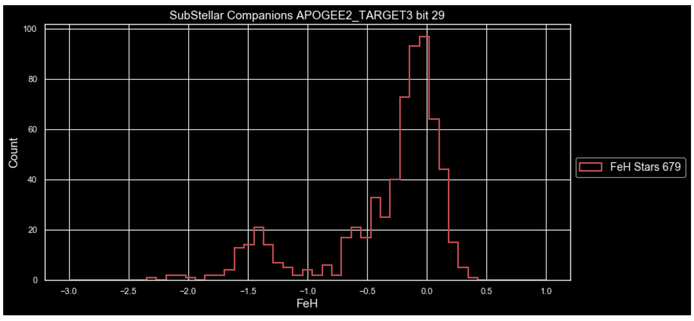

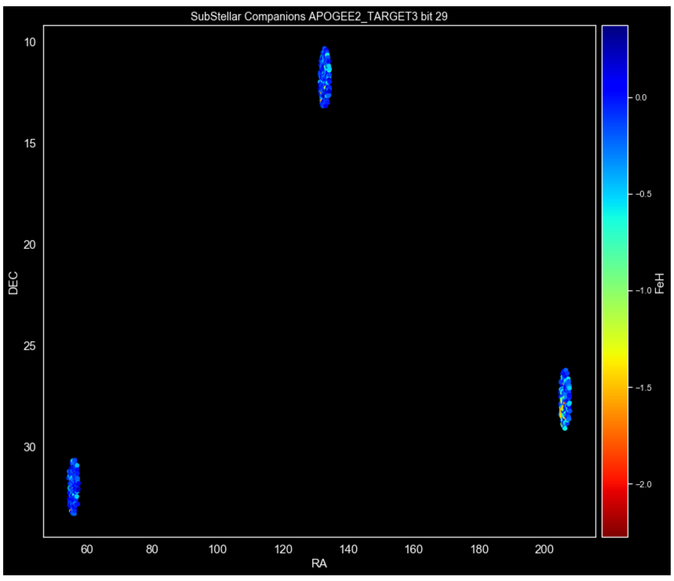


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('M31 Integrated Starlight APOGEE2_TARGET3 bit 30', 'APOGEE2_TARGET3', 30)

APOGEE2_TARGET3_bit_30



APOGEE2_TARGET3_bit_30

M31 Integrated Starlight

Stars 226

PI: G. Zasowski (University of Utah)
We aim to understand the universality of the MW's history that has resulted in the [alpha/Fe]-[Fe/H] patterns seen in its disk today.
We are observing integrated light spectra of numerous positions in M31's disk,
and will employ new methods to extract information about the chemical and dynamical complexity in our nearest large galactic neighbor.



Fields: ['ANDR3']

Stars: 3

main_sequence: 2
turnoff: 1
subgiants: 0
red_clump: 0
red_giants: 0
red_giants - red_clump: 0

BA: 1
Fd: 2
GKd: 0
GKg: 0
Md: 0
Mg: 0
An exception has occurred, use %tb to see the full traceback.

SystemExit


In [2]:

In [2]:
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