

Searching for transits with WTS:  
DSTL and habitability

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ROPACS Meeting

# Outline

DSTL - A short introduction

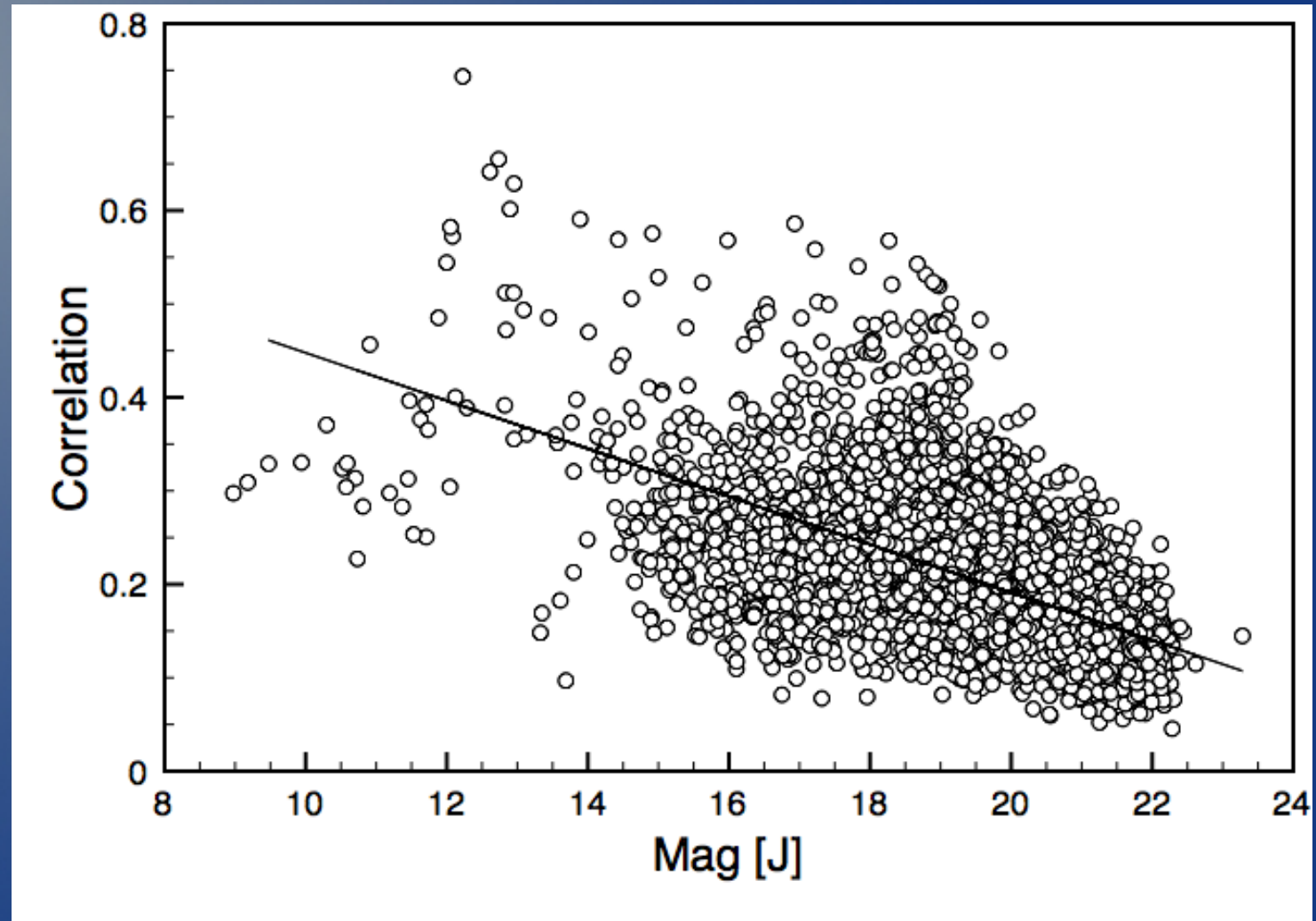
Some more tests & results

WTS : searching for habitable planets

Conclusions

# DSTL - Short introduction

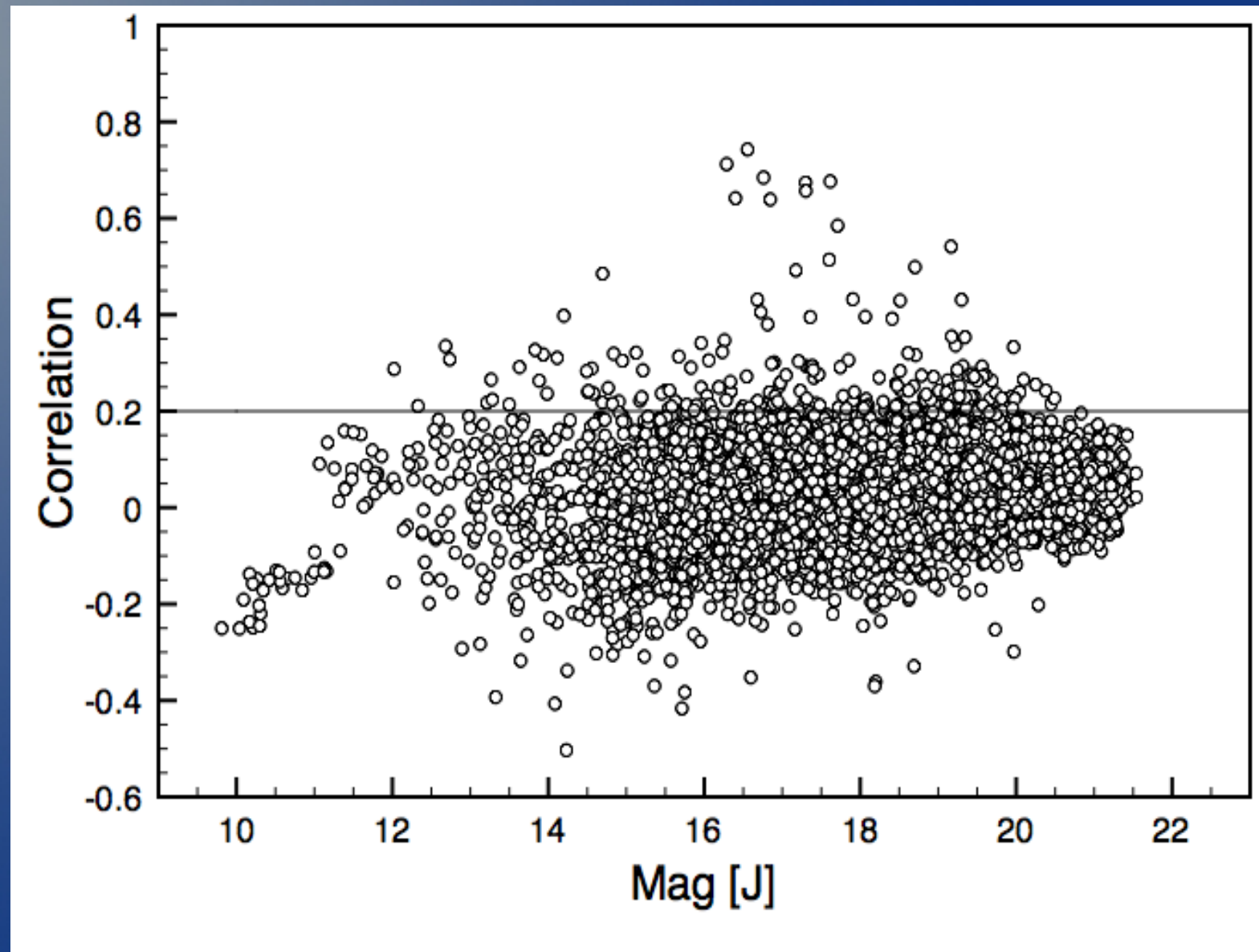
Correlation  
test



# DSTL - Short introduction

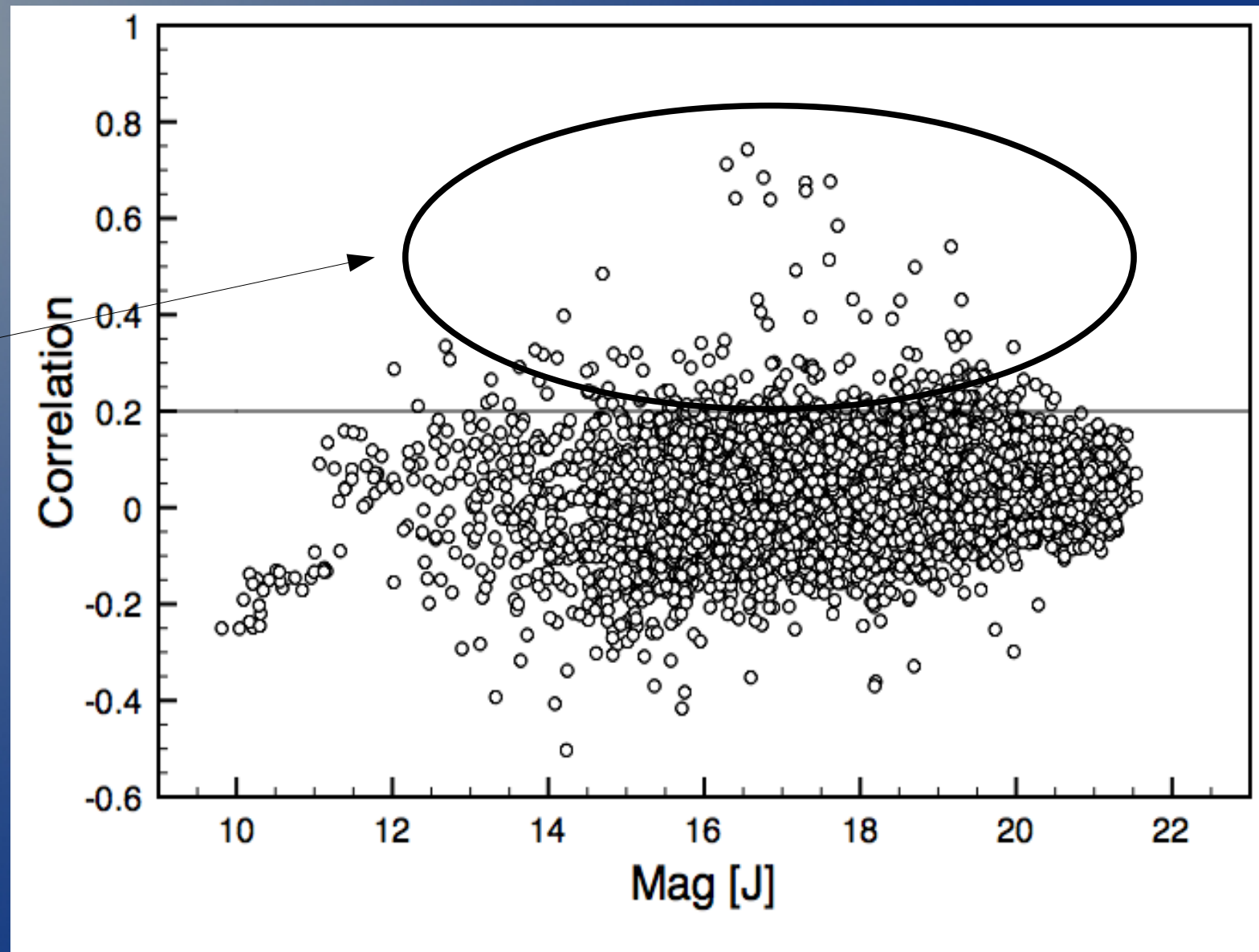
Correlation  
Plot

Cut:  $2\sigma$



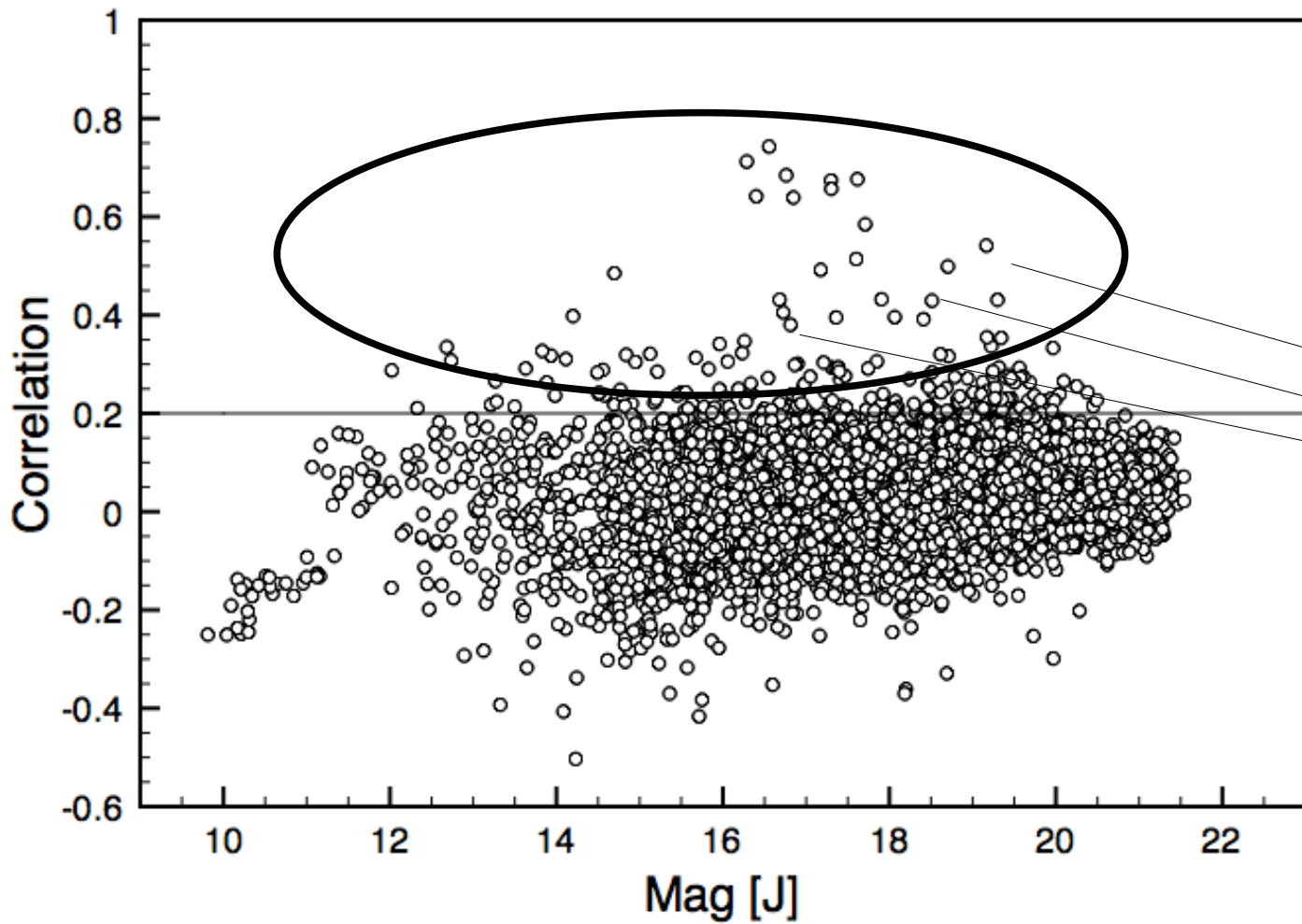
# DSTL - Short introduction

Family





# DSTL - Short introduction

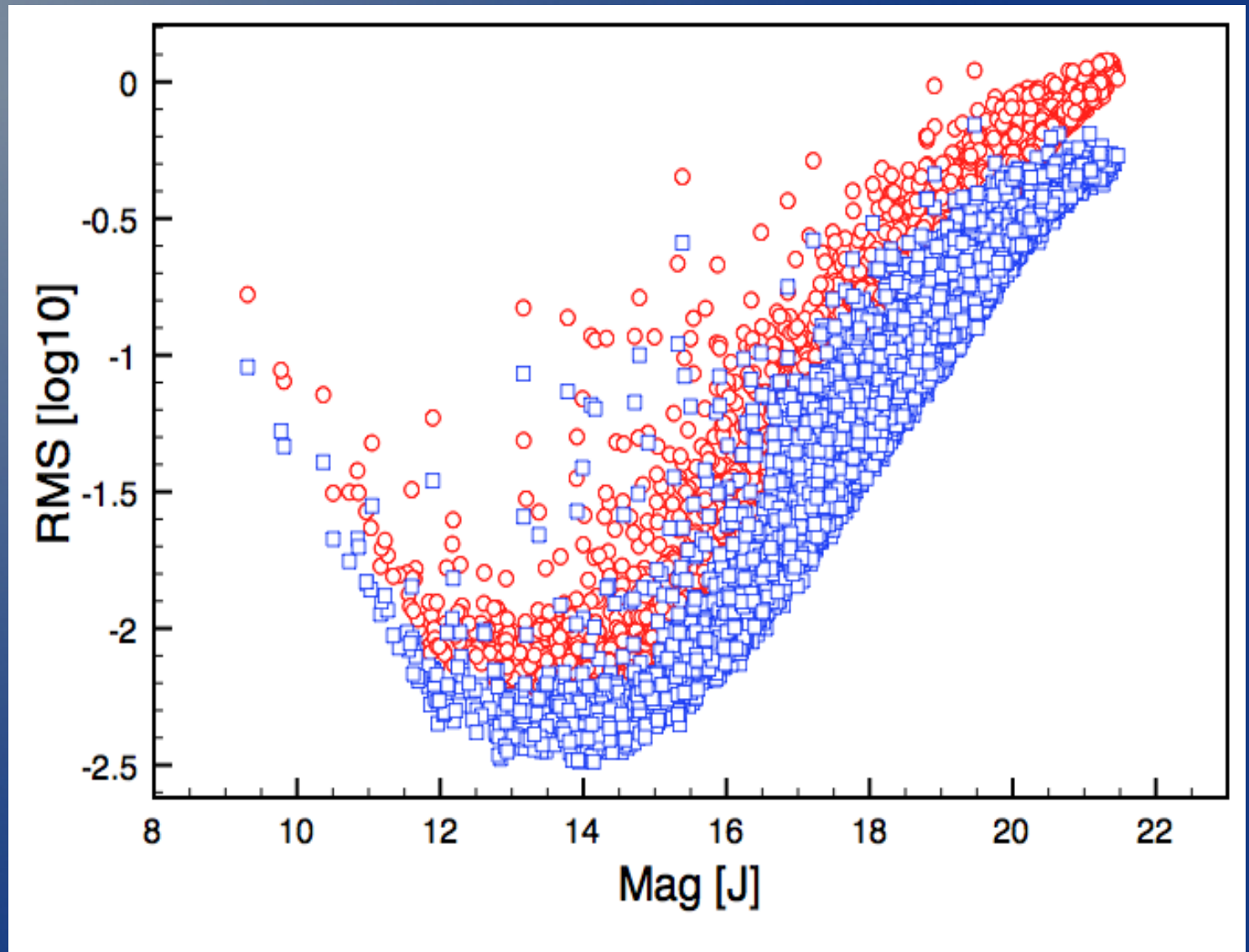


Comparison

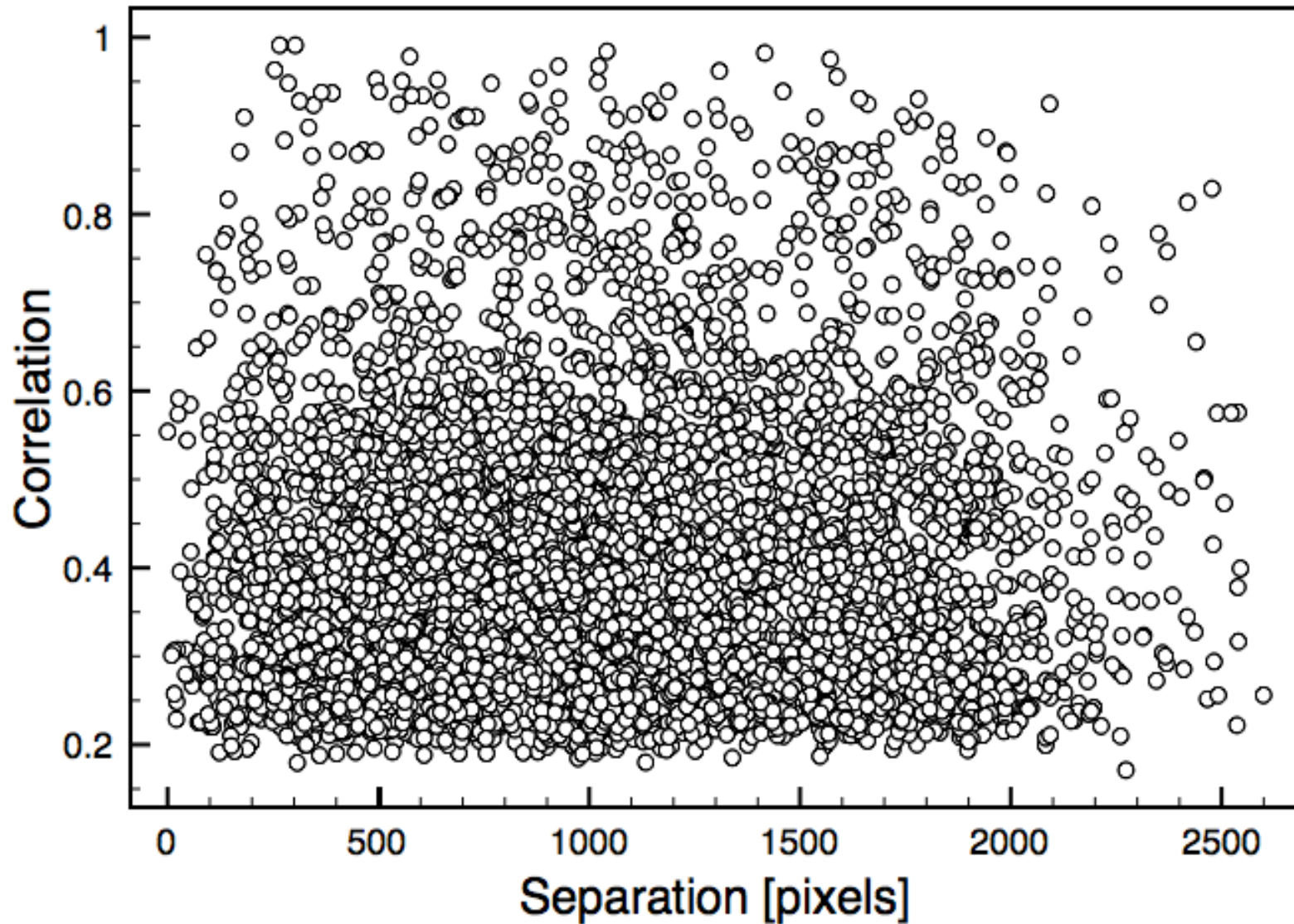
Correction

# Some more tests & results

RMS vs mag



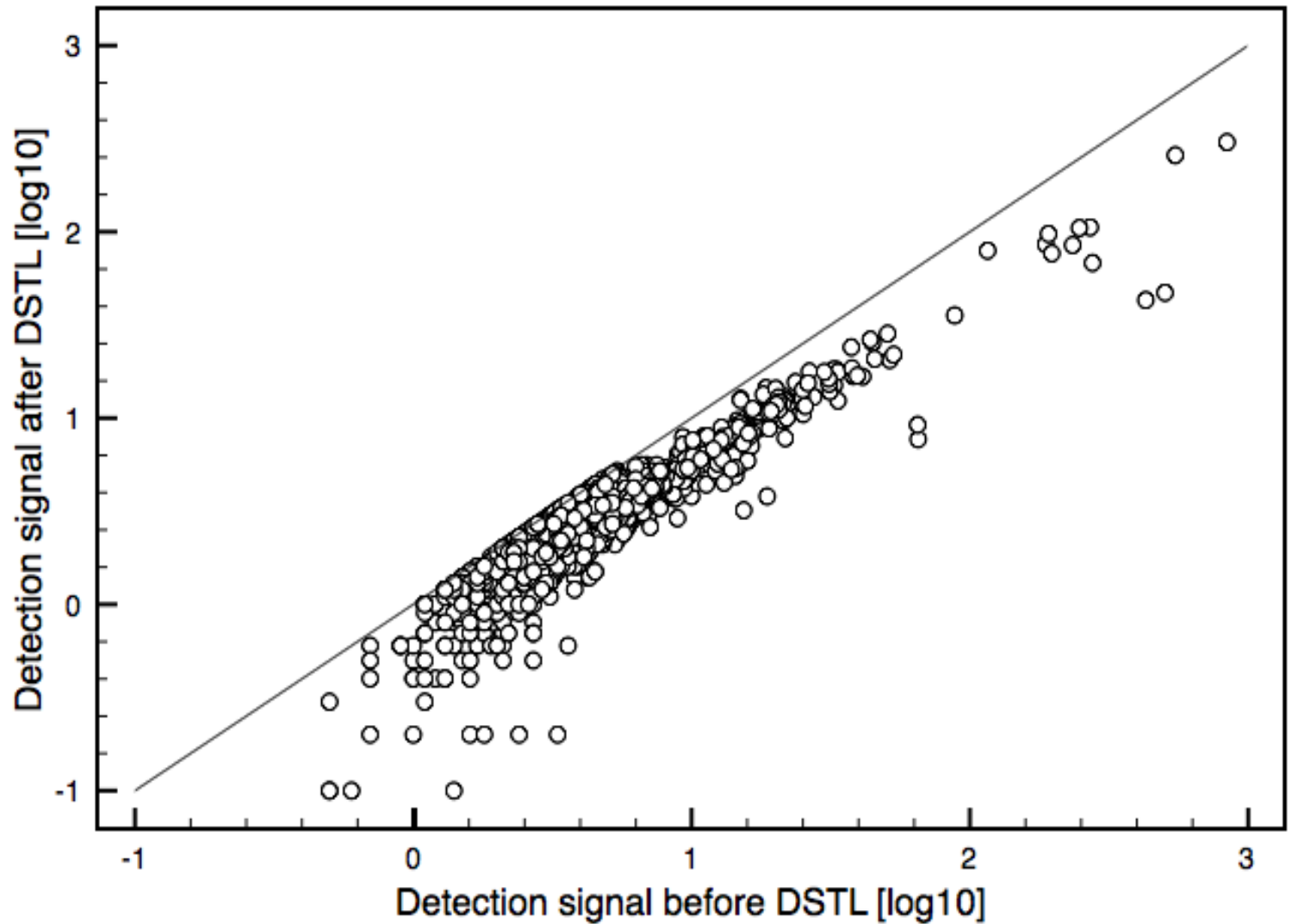
# Some more tests & results



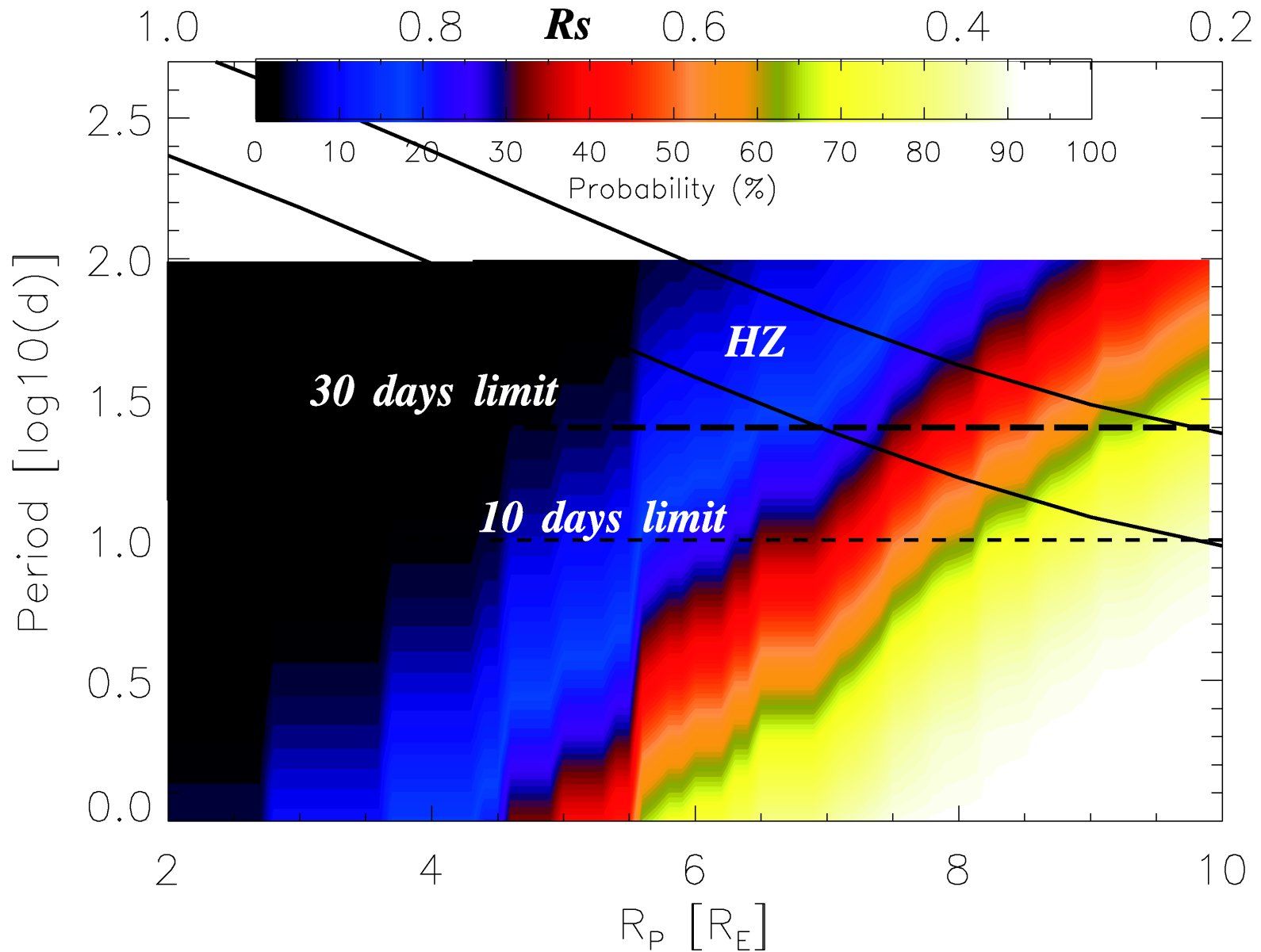


# Some more tests & results

Detection  
test



# WTS : searching for habitable planets



# WTS : searching for habitable planets

Habitable zone limits → Luminosity

Luminosity → Temperature  
Radius

For main sequence stars ...

Radius → Temperature

# WTS : searching for habitable planets

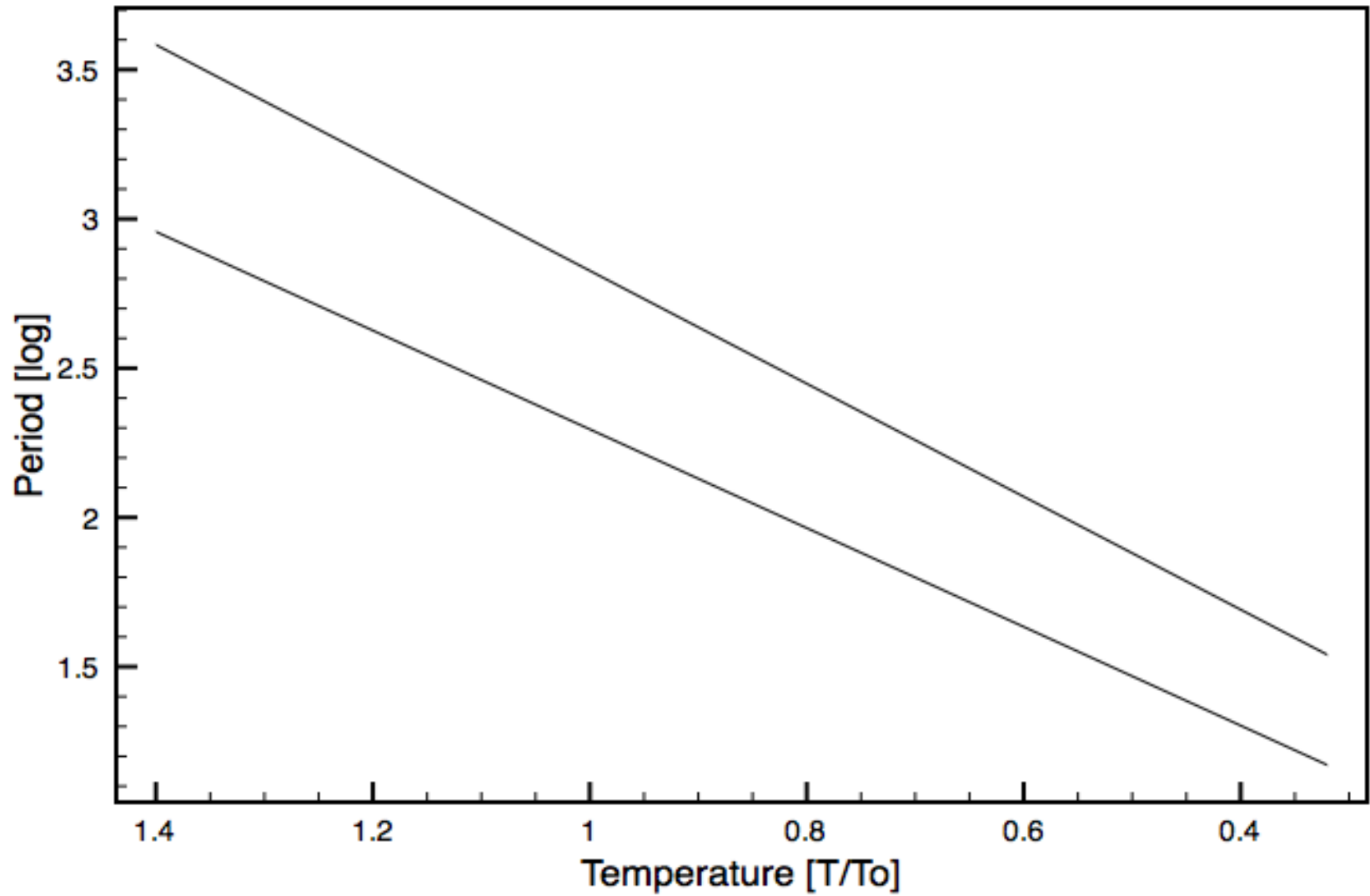


For main sequence stars ...





# WTS : searching for habitable planets



WTS : searching for habitable planets

Temperature (SCD)



Fix the period window



Detection algorithms - period window

# Conclusions

DSTL is almost ready for publication ...

Co-authors ??

(Mislis, Hodgkin, Birkby, Pinfield)

...  $\xi$  works better than other algorithms (TFA  
or SysRem)

We start to search for habitable planets ...

... no results yet

Thank you