

*Sebességmérés - fxcor*

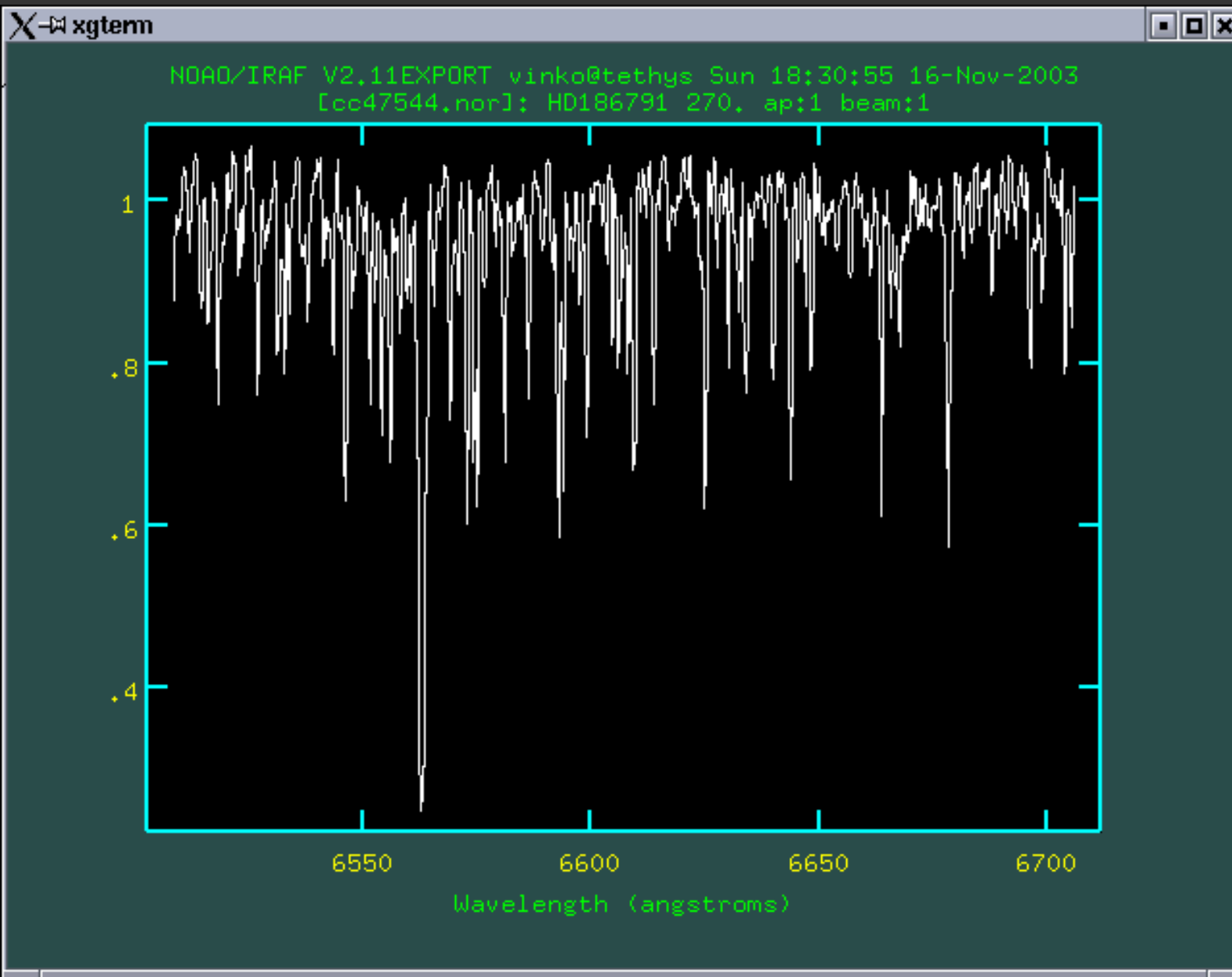
# Keresztkorrelációs-függvény

$$c_{fg}(y) = \int_{-\infty}^{\infty} f(x) \cdot g(x-y) dx$$

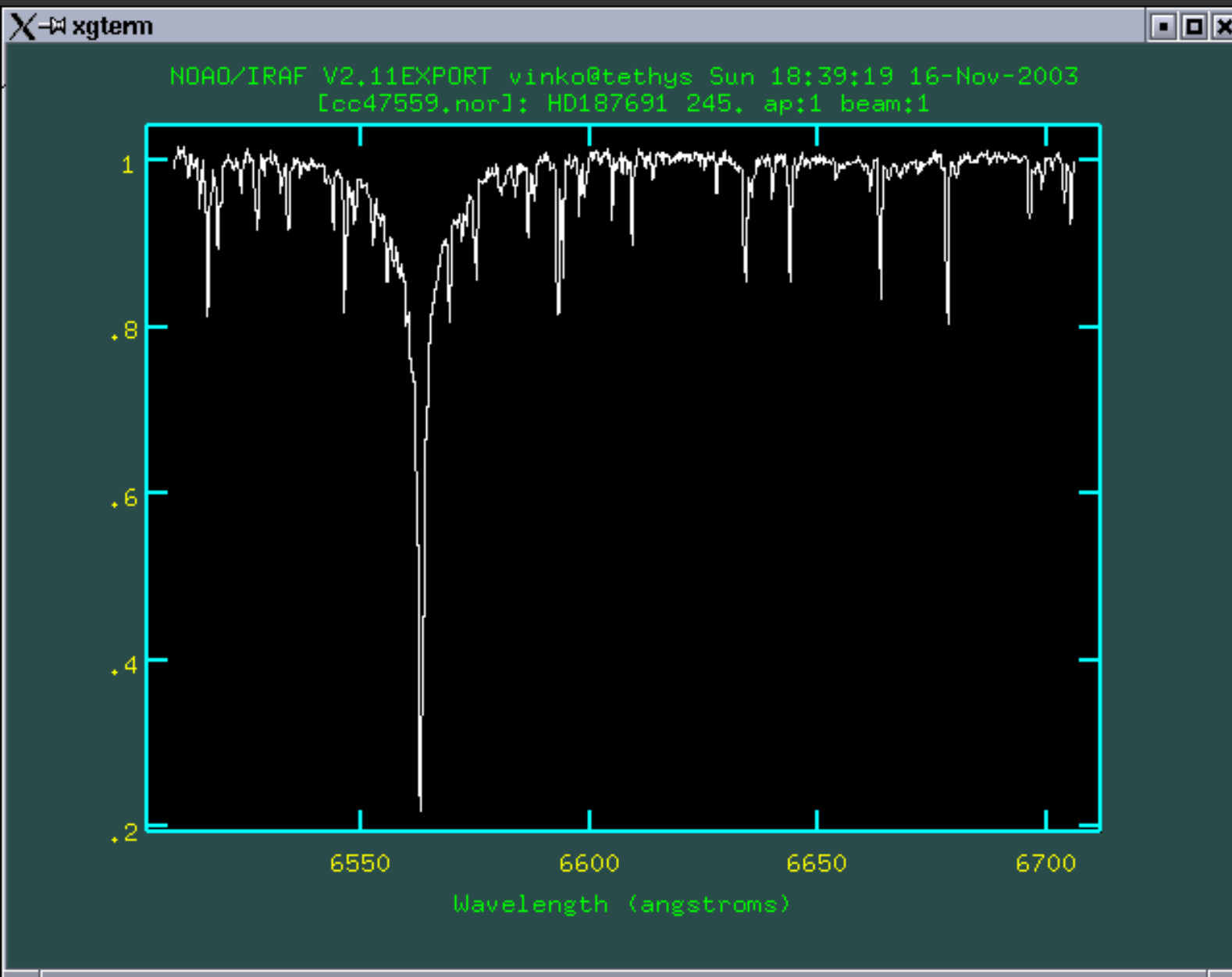
Fourier-transzformálttal:

$$C_{fg}(\omega) = F(\omega) \cdot G^*(\omega)$$

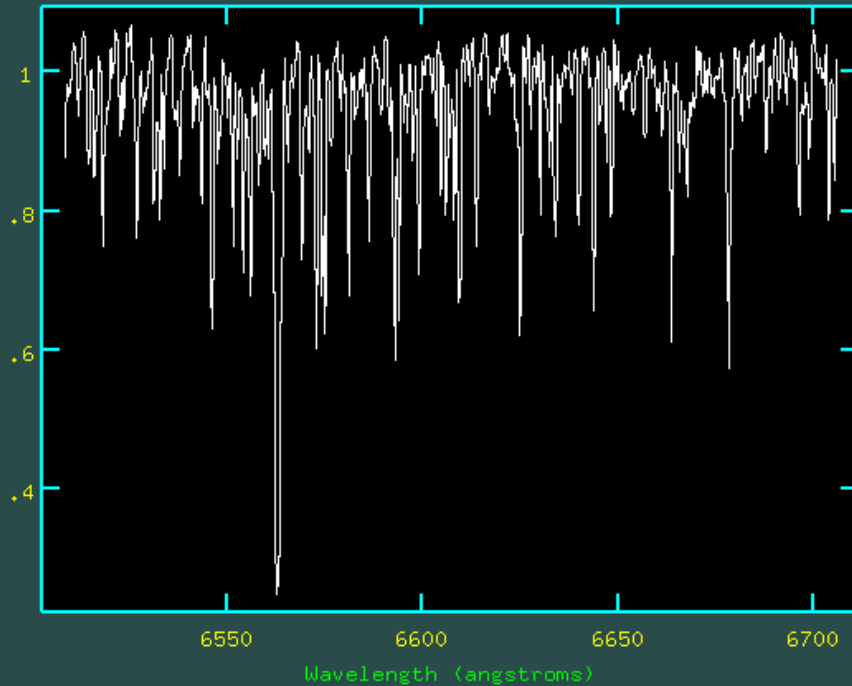
# Spektrum - ismeretlen sebességű



# Spektrum - sebesség standard

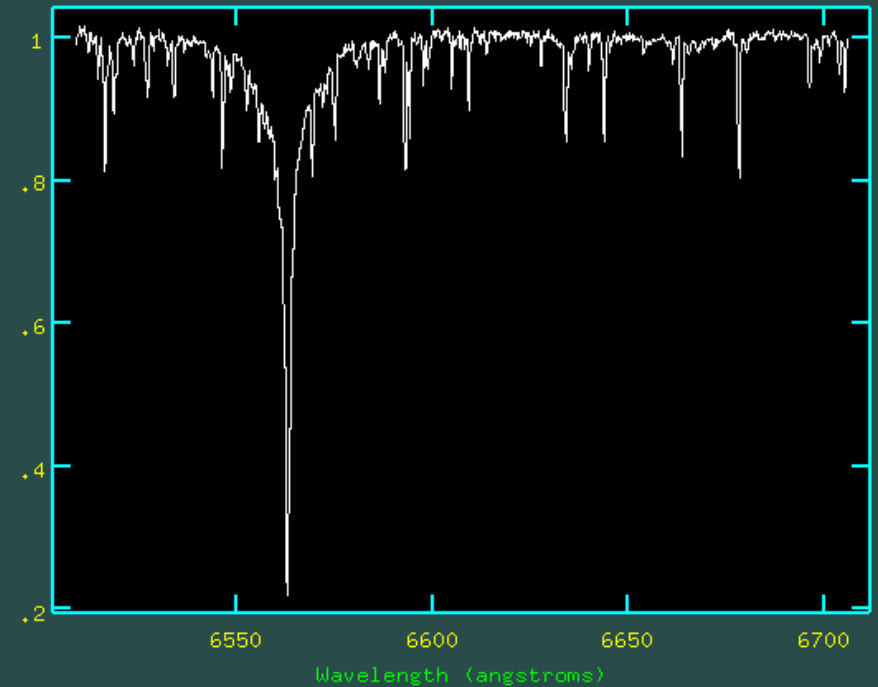


NDAO/IRAF V2.11EXPORT vinko@tethys Sun 18:30:55 16-Nov-2003  
[cc47544.nor]: HD186791 270. ap:1 beam:1



# A két azonos régiójú spektrum

NDAO/IRAF V2.11EXPORT vinko@tethys Sun 18:39:19 16-Nov-2003  
[cc47559.nor]: HD187691 245. ap:1 beam:1



# Kulcsszavak beállítása

Noao => rv => *keywpars*

```
vinko@tethys:~ <2>
  I R A F
  Image Reduction and Analysis Facility

PACKAGE = rv
  TASK = keywpars

(ra      =          RA) Right Ascension keyword
(dec     =          DEC) Declination keyword
(ut      =          TIME-OBS) UT of observation keyword
(utmiddl=          UTMIDDLE) UT of mid-point of observation keyword
(exptime=          EXPTIME) Exposure time keyword
(epoch   =          EPOCH) Epoch of observation keyword
(date_ob=          DATE-OBS) Date of observation keyword

(hjd     =          HJD) Heliocentric Julian date keyword
(mjd_obs=          MJD) Modified Julian Date of observation keyword
(vobs    =          VOBS) Observed velocity keyword
(vrel    =          VREL) Relative velocity keyword
(vhelio  =          VHELIO) Heliocentric velocity keyword
(vlsr    =          VLSR) LSR velocity keyword
(vsun    =          VSUN) Epoch of solar motion keyword
(mode    =          ql)

ESC-? for HELP
```

# Sebesség kimérése => fxcor

Noao => rv => *fxcor*

```
vinko@tethys:~ <2>
IRAF
Image Reduction and Analysis Facility

PACKAGE = rv
TASK = fxcor

objects = █          cc47544,nor  List of object spectra
template=          cc47559,nor  List of template spectra
(apertur=          *) Apertures to be used
(cursor =          ) Graphics input cursor

(continuum=        both) Continuum subtract spectra?
(filter =          none) Fourier filter the spectra?
(rebin =           smallest) Rebin to which dispersion?
(pixcorr=          no) Do a pixel-only correlation?
(osample=          *) Object regions to be correlated ('*' => all)
(rsample=          *) Template regions to be correlated
(apodize=          0.2) Apodize end percentage

(funcion=          center1d) Function to fit correlation
(width =           INDEF) Width of fitting region in pixels
(height =          0.) Starting height of fit
(peak =            no) Is height relative to ccf peak?
More
```

=> a vizsgált spektrum  
=> a "standard" spektrum

=> kontinuum normált-e a  
spektrum

=> tartomány1  
=> tartomány2

ESC-? for HELP

# Sebesség kimérése => fxcor

Noao => rv => *fxcor*

```
X vinko@tethys:~ <2>
IRAF
Image Reduction and Analysis Facility
PACKAGE = rv
TASK = fxcor
More
(minwidth=      3.) Minimum width for fit
(maxwidth=     31.) Maximum width for fit
(weights=       1.) Power defining fitting weights
(backgro=       0.) Background level for fit
(window =      INDEF) Size of window in the correlation plot
(wincent=      INDEF) Center of peak search window

(output =       vel) Root spool filename for output
(verbose=      txtonly) Verbose output to spool file?
(imupdat=      no) Update the image header?
(graphic=      stdgraph) Graphics output device

(interac=      yes) Interactive graphics?
(autowri=     yes) Automatically record results?
(autodra=     yes) Automatically redraw fit results?
(ccftype=     image) Output type of ccf
More
ESC-? for HELP
```

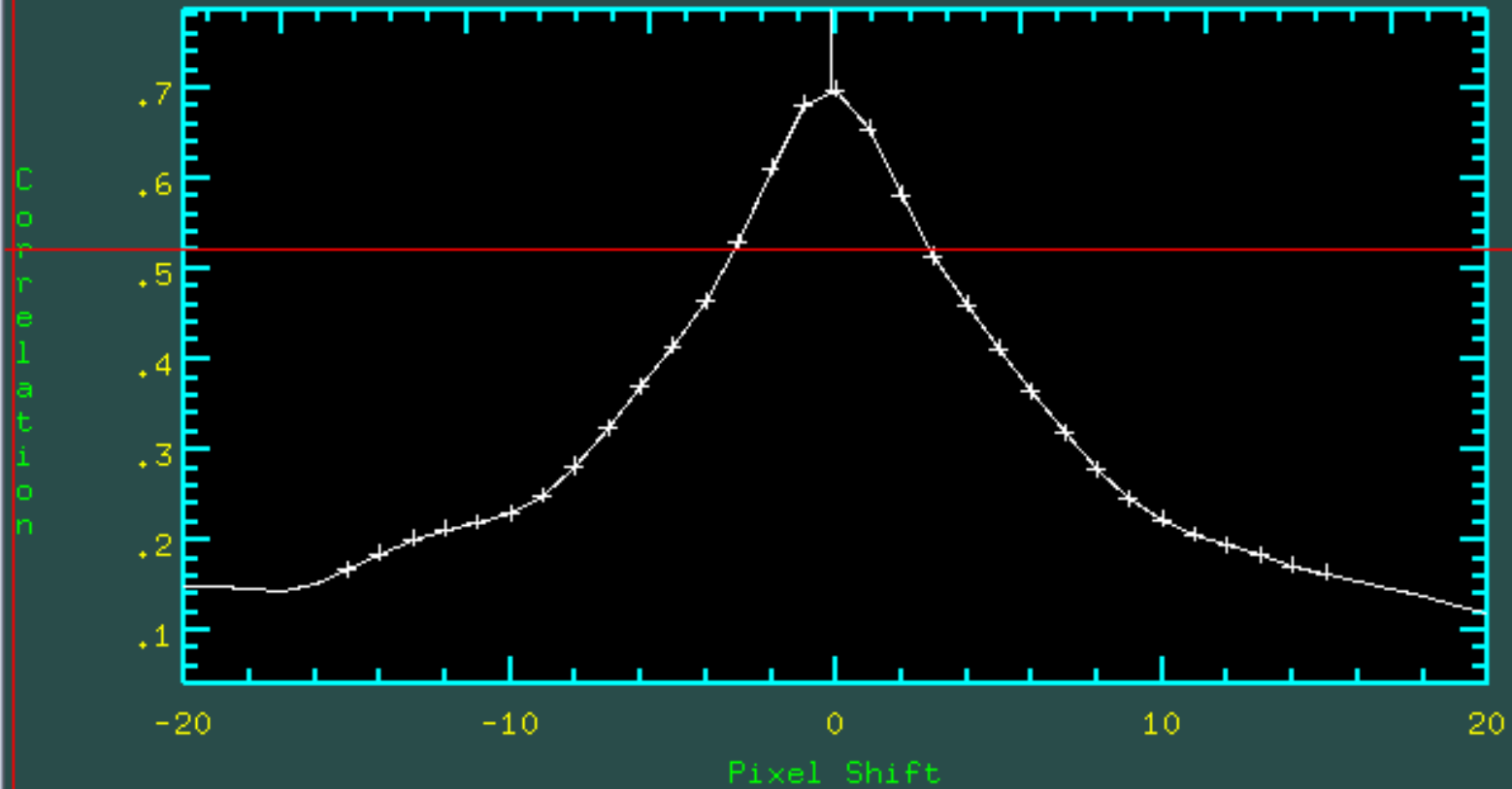
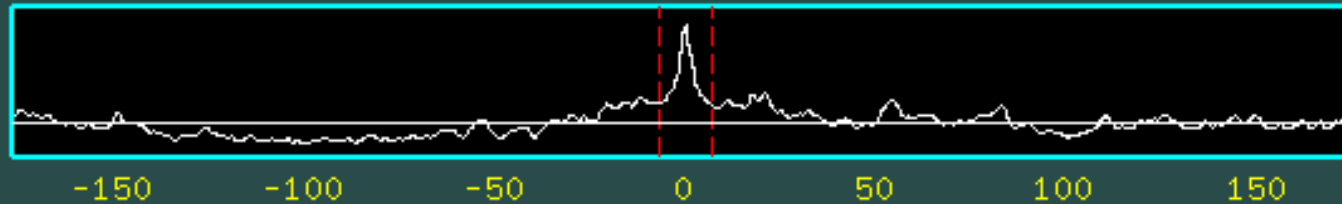
# Sebesség kimérése => fxcor

Noao => rv => *fxcor*

```
X vinko@tethys:~ <2>
IRAF
Image Reduction and Analysis Facility
PACKAGE = rv
TASK = fxcor
More
(observa= █ ddo) Observation location database ←
(continp= ) Continuum processing parameters
(filtpar= ) Filter parameters pset
(keywpar= ) Header keyword translation pset
(mode = ql)
ESC-? for HELP
```

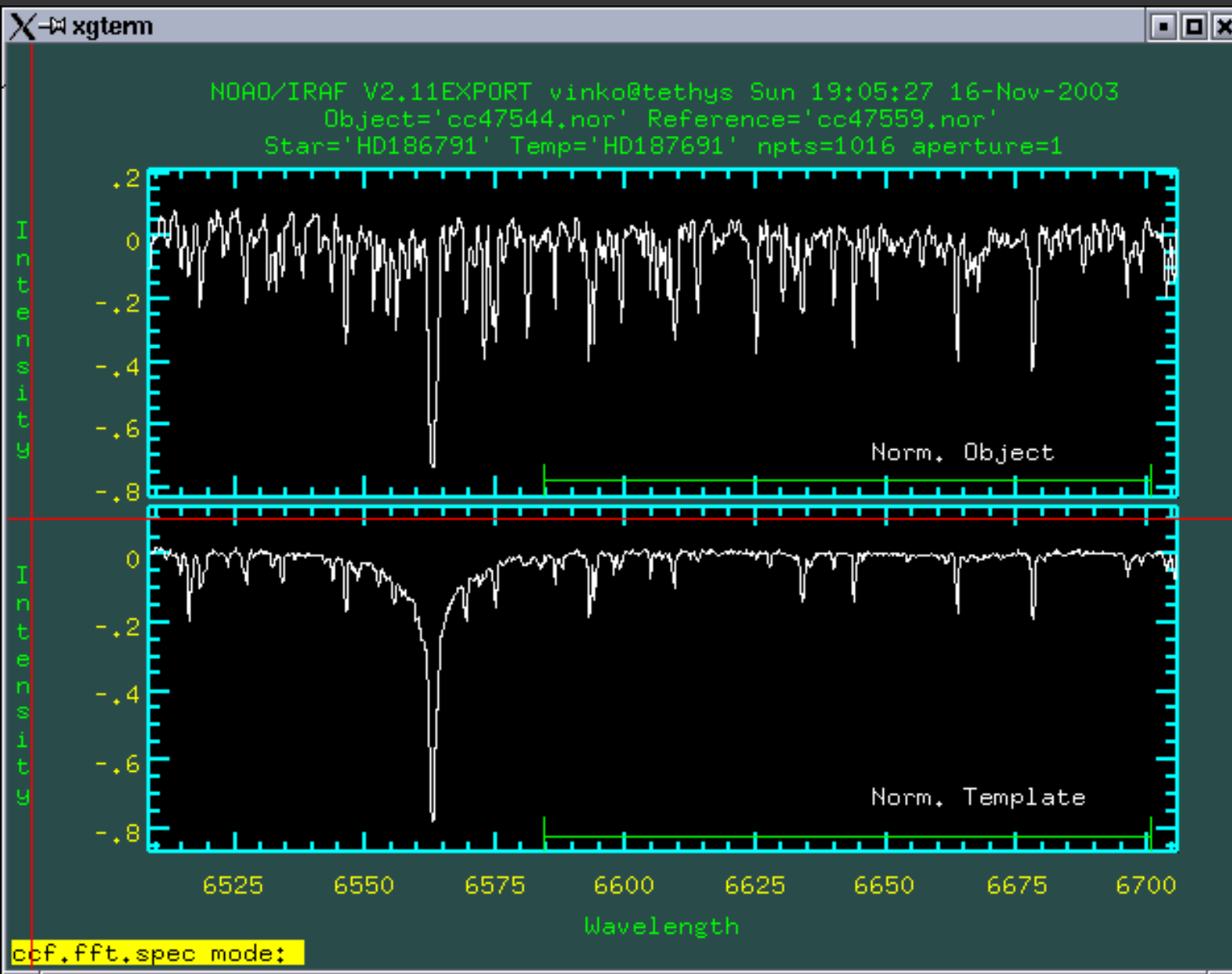
xgterm

NDAO/IRAF V2.11EXPORT vinko@tethys Sun 19:04:53 16-Nov-2003  
Object='cc47544,nor' Temp='cc47559,nor' npts=1024 aperture=1  
Star = 'HD186791' Template = 'HD187691'



HJD= 672.5951 FWHM=INDEF Vr=-1.720 Va=6.029 Vh=-2.076 +/- INDEF

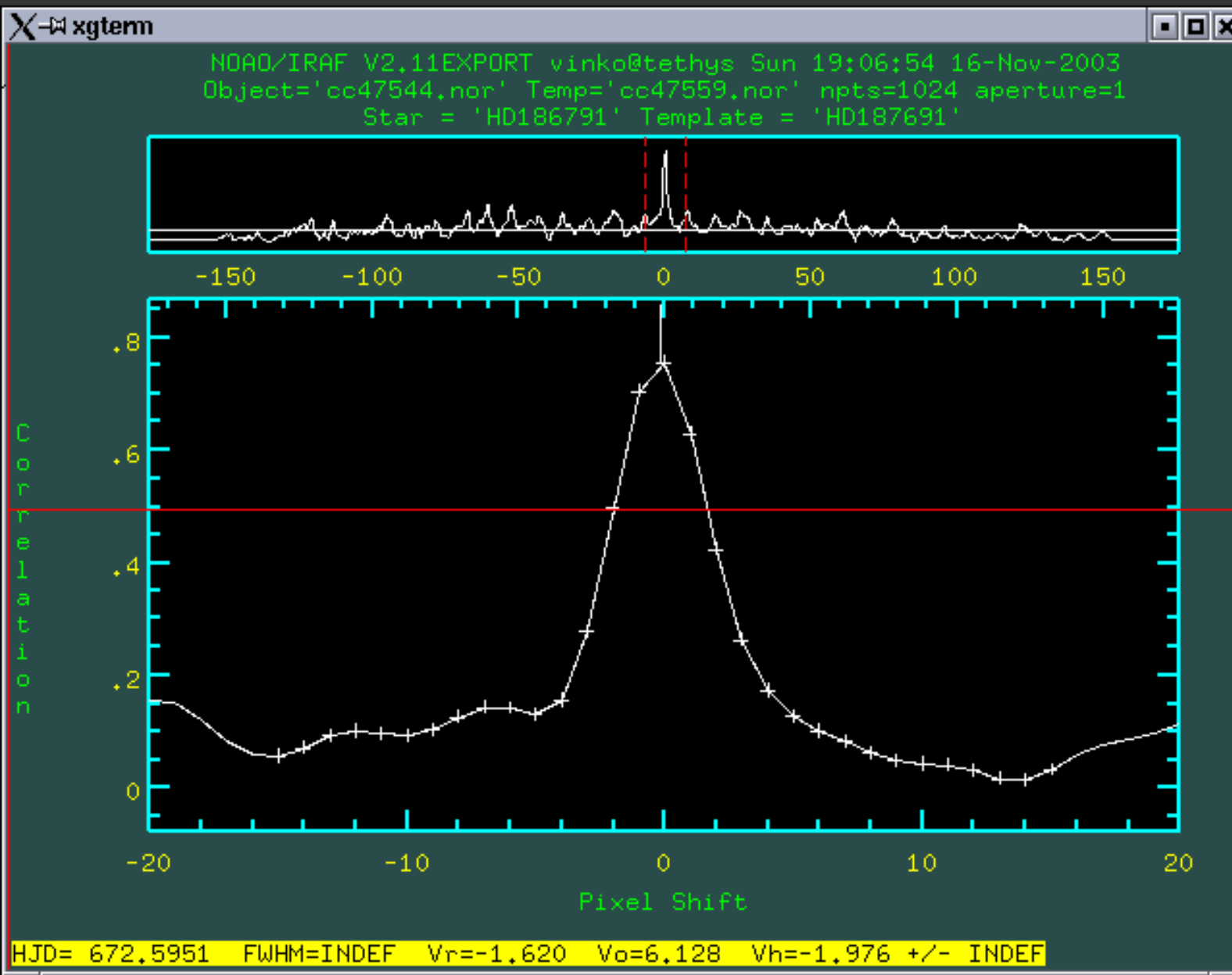
# "Spektrum-mód"



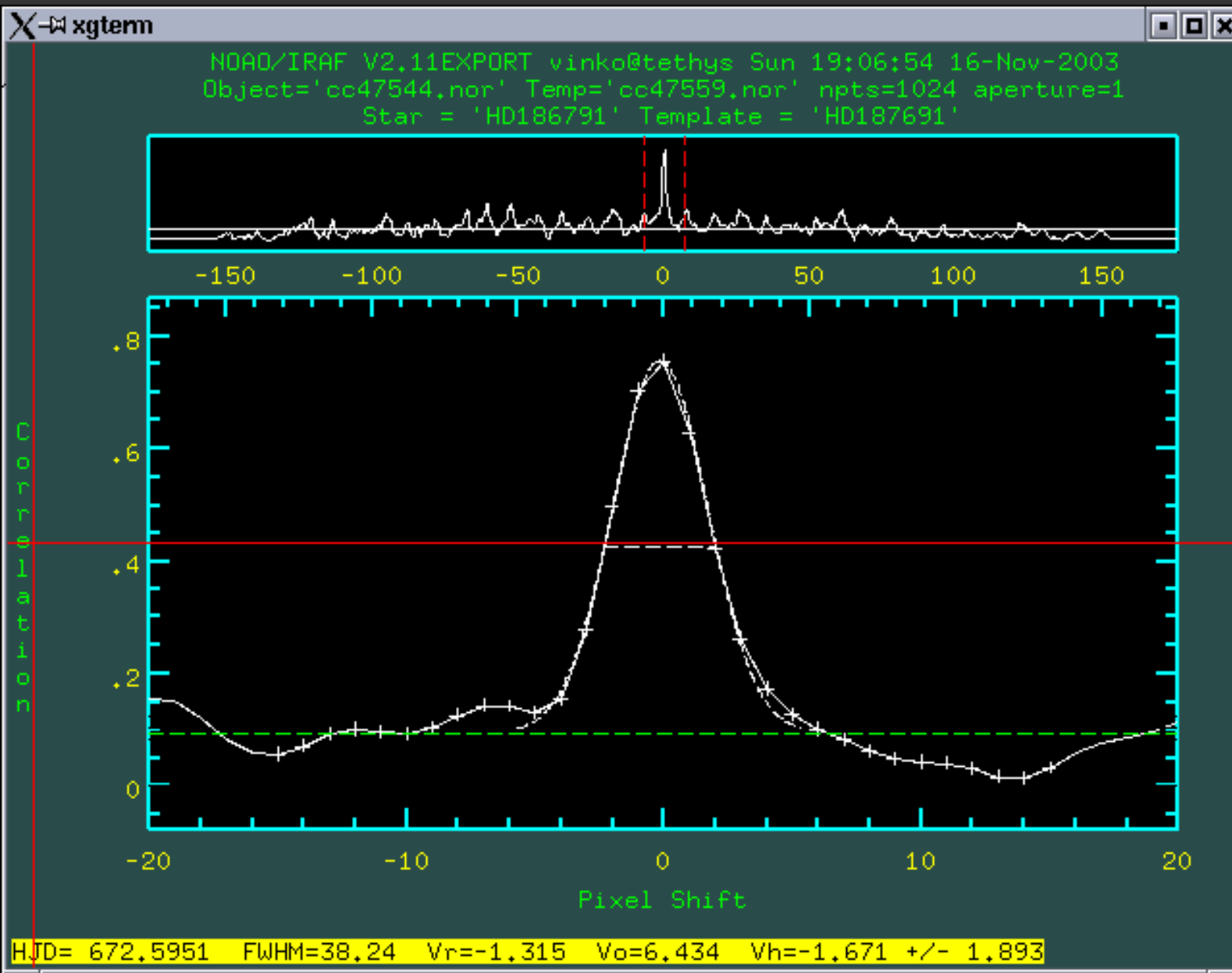
2 x b : szakasz  
kijelölése

x : visszatérés  
az előző  
ablakhoz

# Új illesztés



# Függvény változtatása



# Függvény változtatása

