

TIFF AND FITS SPECTROHELIOGRAMS

Data cubes general information :

2048 x 2048 x 40 pixels for Halpha and Hbeta for (x, y, lambda)

2048 x 2048 x 100 pixels for CaII H and K for (x, y, lambda)

Long exposures for prominences use a neutral density ND 0.9 artificial moon upon disk

Spectral pixel :

0.093 A for CaII H and K (order 5) ; 0.124 A for Hbeta (order 4) ; 0.155 A for Halpha (order 3)

Slit width : 30 microns \approx 1.55 arc sec ; spatial pixel \approx 1.085 arc sec (varies with season)

Exposure time : 10 ms typical (60 ms with artificial moon for prominences)

TIFF (LEVEL 0 or RAW DATA, 3D data cubes, line profiles)

ftp access only at <ftp://ftpbass2000.obspm.fr/pub/meudon/spc/tiff/>

OBSERVATIONS : 3D TIFF

Indices : 1 wavelength (λ) / 2 along slit (y) / 3 orthogonal to slit (x)

x is geographical E/W ; y is geographical N/S

Please refer to our documentation to read properly TIFF files and reorder coordinates to get (x, y, λ) datacubes

HAddmmaaaa.hhmmss.TIF	Halpha
HAPddmmaaaa.hhmmss.TIF	Halpha prominences (long exposure + neutral density)
HBddmmaaaa.hhmmss.TIF	Hbeta
Hddmmaaaa.hhmmss.TIF	CaII H
HPddmmaaaa.hhmmss.TIF	CaII H prominences (long exposure + neutral density)
Kddmmaaaa.hhmmss.TIF	CaII K
KPddmmaaaa.hhmmss.TIF	CaII K prominences (long exposure + neutral density)

ddmmaaaa = date (day, month, year)

hhmmss = time (hour, minute, second)

DARK CURRENT : 2D TIFF

Indices : 1 wavelength (λ) / 2 along slit (y)

Must be subtracted from each plane of 3D TIFF files

DHAddmmaaaa.hhmmss.TIF	Halpha
DHAPddmmaaaa.hhmmss.TIF	Halpha prominences (long exposure + neutral density)
DHBddmmaaaa.hhmmss.TIF	Hbeta

DHddmmaaaa.hhmmss.TIF CaII H
DHPddmmaaaa.hhmmss.TIF CaII H prominences (long exposure + neutral density)
DKddmmaaaa.hhmmss.TIF CaII K
DKPddmmaaaa.hhmmss.TIF CaII K prominences (long exposure + neutral density)
FLAT FIELD : NOT YET AVAILABLE

FITS (LEVEL 1 DATA derived from TIFF level 0)

http access (Web server) at <http://bass2000.obspm.fr>

or direct ftp access at <ftp://ftpbass2000.obspm.fr/pub/meudon/spc/>

FITS files (level 1 data) are derived from TIFF files (level 0 or RAW data). In particular, the following treatments are performed :

- Dark current subtraction
- Line curvature correction (parabolic fitting)
- P angle + coelostat rotation : solar North is up
- Classical 2D images production at some specific positions in the line profile

Indices in 3D FITS files :

1 solar Est/West direction (x) / 2 solar North South direction (y) / 3 wavelength (λ)

Directories of the FTP tree :

H CaII H images and CaII H 3D data cubes (line profiles)
H1v CaII H blue wing
Hp CaII H long exposure with moon for prominences and 3D data cubes (line profiles)
Ha Halpha images and Halpha 3D data cubes (line profiles)
Ha2cb Halpha blue continuum
Ha2r Halpha red wing
Ha2b Halpha blue wing
Hap Halpha long exposure with moon for prominences and 3D data cubes (line profiles)
Hb Hbeta images and Hbeta 3D data cubes (line profiles)
Hb2cb Hbeta blue continuum
Hb2r Hbeta red wing
Hb2b Hbeta blue wing
K CaII K images and CaII K 3D data cubes (line profiles)
K1v CaII K blue wing
Kp CaII K long exposure with moon for prominences and 3D data cubes (line profiles)