



# Spectroscopic Record Sheet



## Details on acquisitions

|                     |                          |
|---------------------|--------------------------|
| Object              | HuBesPer 1               |
| Coordinates (J2000) | 08:58:23.63 -38:05:24.53 |
| Type                | /                        |

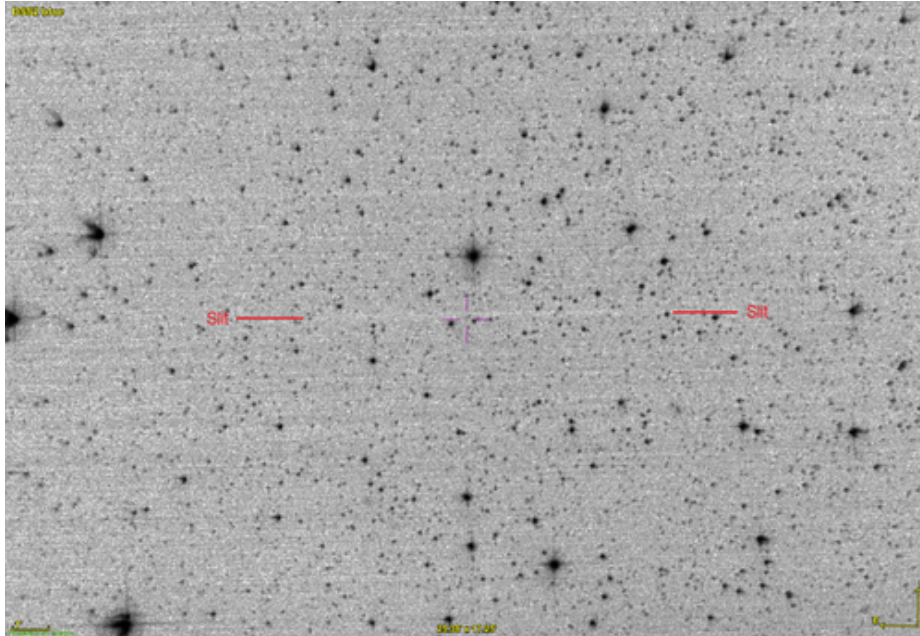
|                    |                     |
|--------------------|---------------------|
| Observation date   | 6.075/03/2024       |
| Weather conditions | /                   |
| Observer           | 2SPOT               |
| Location           | Deep Sky Chile (CL) |

|                       |                         |
|-----------------------|-------------------------|
| Mount                 | 10 Micron GM3000 HPS    |
| Telescope             | Newton 300mm F/4        |
| Spectroscope          | Alpy 600 (23um slit)    |
| Resolution (bin 1x1)  | ~1nm at 656 nm          |
| Principal camera      | Atik 414 EX             |
| Dispersion (bin 1x1)  | ~0,3 nm/pixel at 656 nm |
| Cam temperature       | -10°C                   |
| Binning               | 2x2                     |
| Guiding camera        | ASI 178MM               |
| Data acquisition Soft | Prism v11.2.3.21        |
| Data processing soft  | ISIS V6.1.1             |

|                        |            |
|------------------------|------------|
| Exposure on object     | 7 x 1200 s |
| Master Dark            | Corrected  |
| Master Flat            | Corrected  |
| Master Offset          | Corrected  |
| Neon-Argon calibration | Corrected  |

|                       |               |
|-----------------------|---------------|
| Reference star calib. | HD89461_B9V   |
| Exposure on ref star  | 14 x 4 s      |
| Ref star Sp. date     | 6.133/03/2024 |

## Slit position



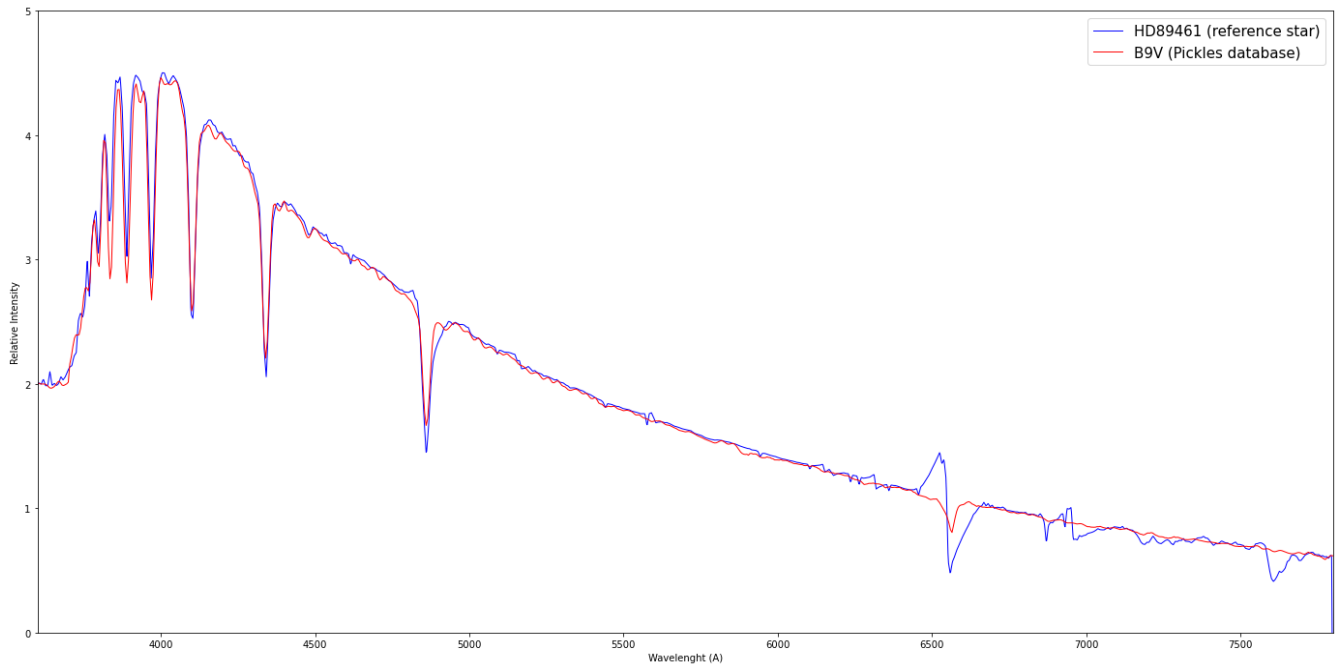
## Object picture(s)



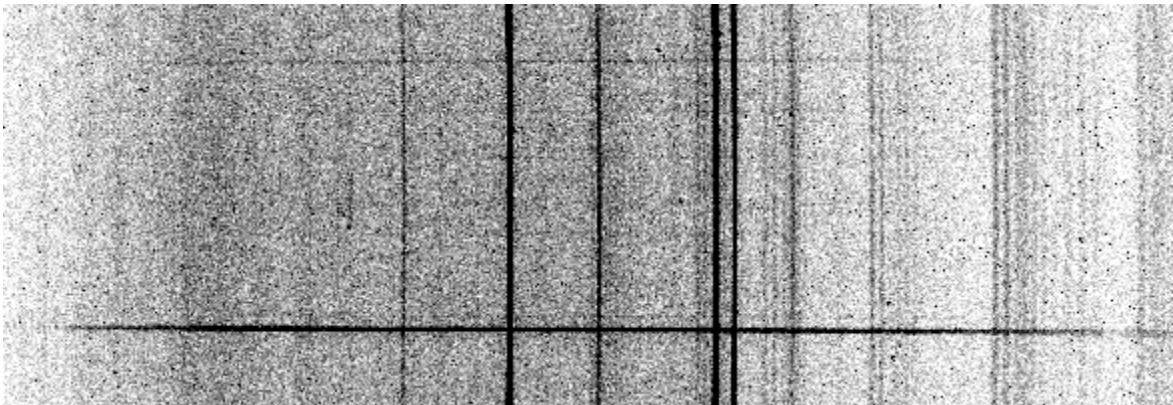


# Instrumental Response and 2D Spectra

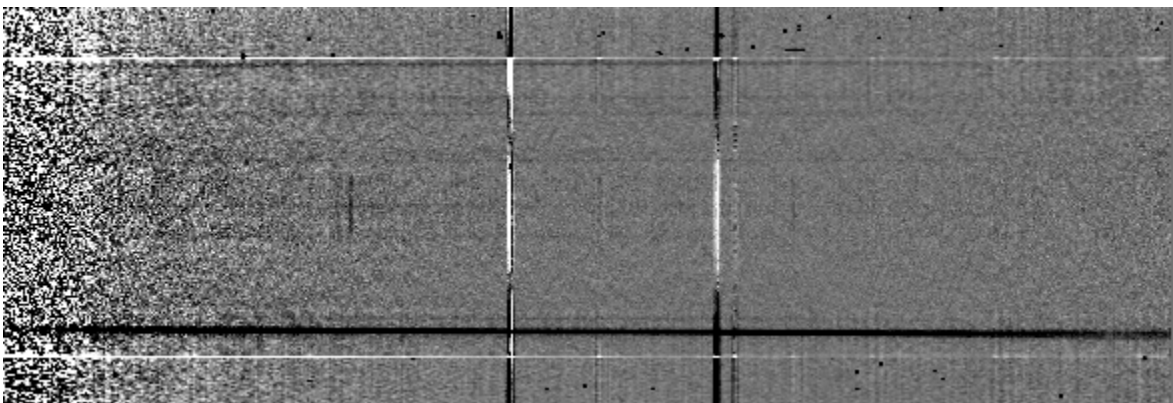
Instrumental response (red = theoretical ref star spectrum ; blue = acquired ref star spectrum with instrumental response correction applied)



## 2D Raw spectrum

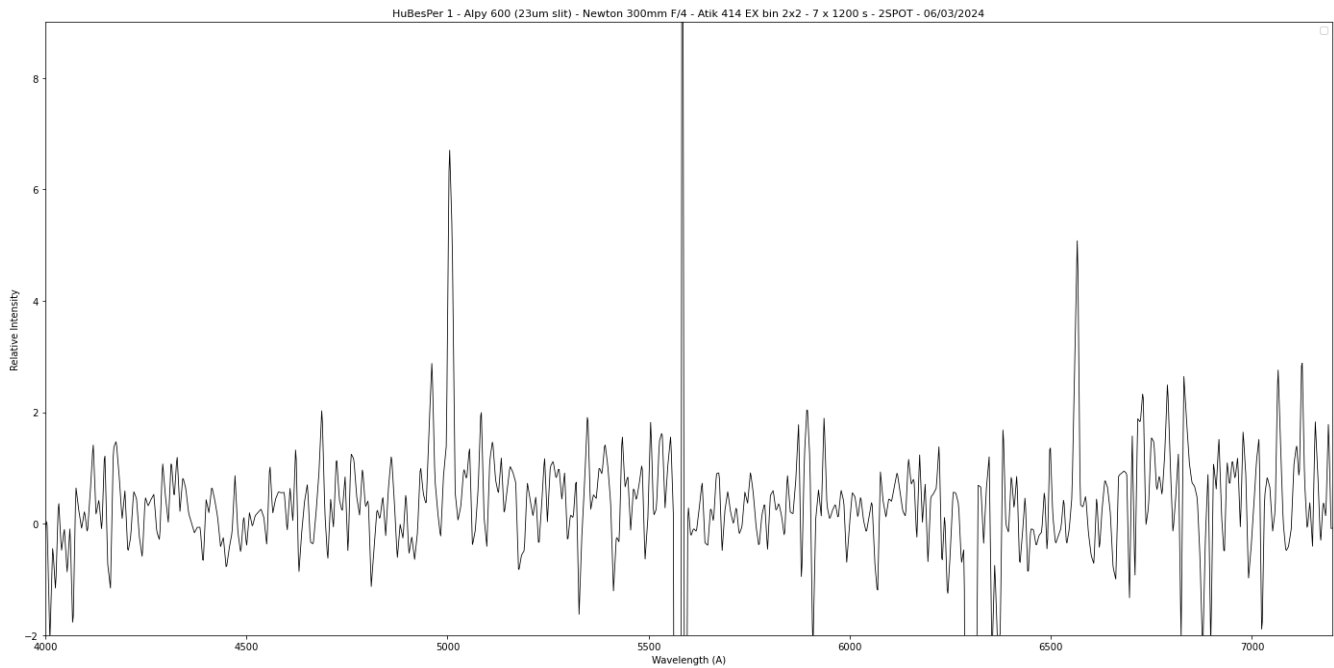


## 2D Processed spectrum





# Results



## Comments

HeII(4686Å), [OIII] and Halpha lines detected.  
HuBesPer 1 shows the nebular lines of a true PN