Spectroscopic Record Sheet

Details on acquisitions

Object	PaStDr2
Coordinates (J2000)	19:55:52.27 +30:16:09.90
Type	PN Candidate

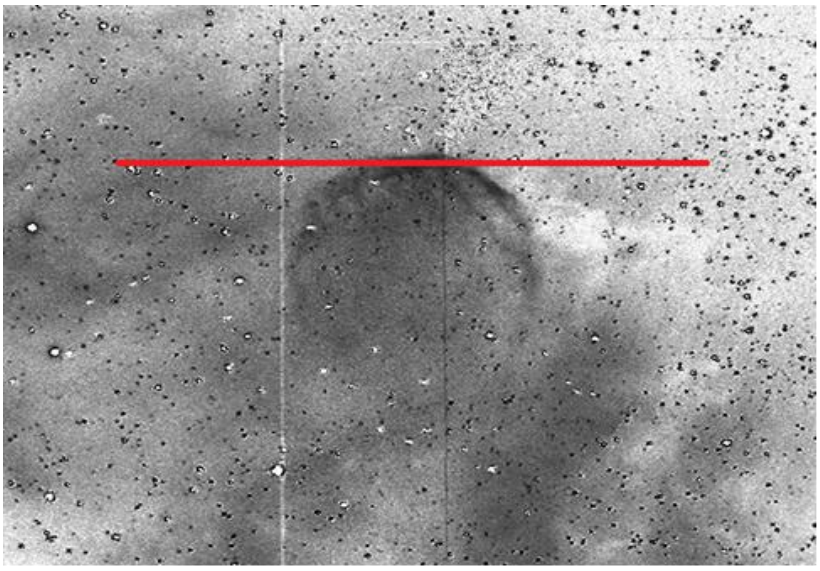
Observation date	13.949/07/2020 (d/m/y)
Meteorological conditions	20°C
Observer	L.Mulato
Location	Cornillon France

Mount	NEQ6
Telescope	Newton Skywatcher 200 mm F/5
Spectrograph	Alpy 600 - 23 µm slit
Resolution (bin 1x1)	~1 Å at λ656 nm
Science camera	ATIK 414 EX
Dispersion (bin 1x1)	~0,3 nm/pixel at 656 nm
Cam Temperature	0 °C
Binning	2x2
Guiding camera	ASI290 MM non cooled
Data acquisition Soft	PRISM V10
Data processing Soft	Isis V5.9.3

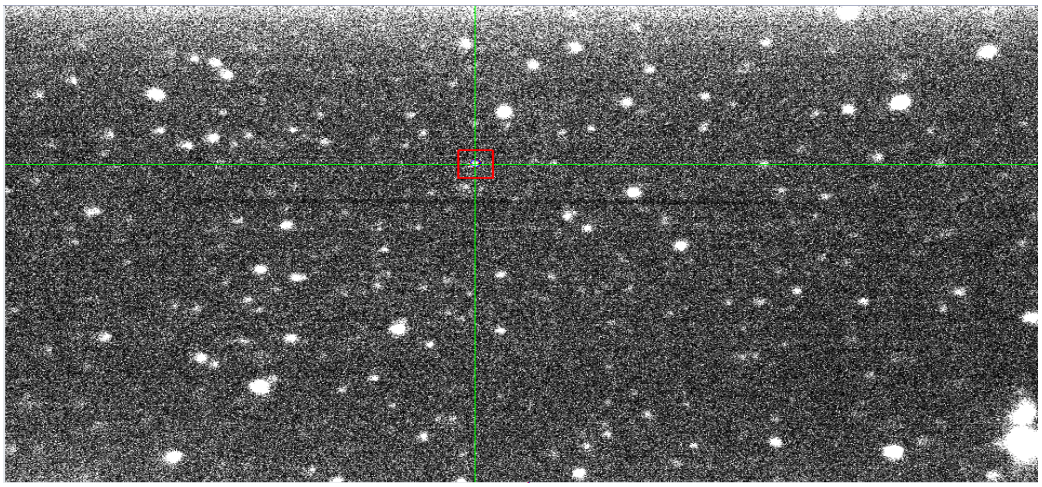
Exposure on object	8 x 1200 s
Date Master Dark	28/06/2020 (d/m/y)
Dark Temperature Corr	1
Date Master Offset	22/05/2020 (d/m/y)
Date Master Flat	14/07/2020 (d/m/y)
Neon-Argon calib.	14/07/2020 (d/m/y)
Reference star calib.	hd193369
Exposure on ref star	35 x 10 s
Date	14.010/07/2020

Images and slit position

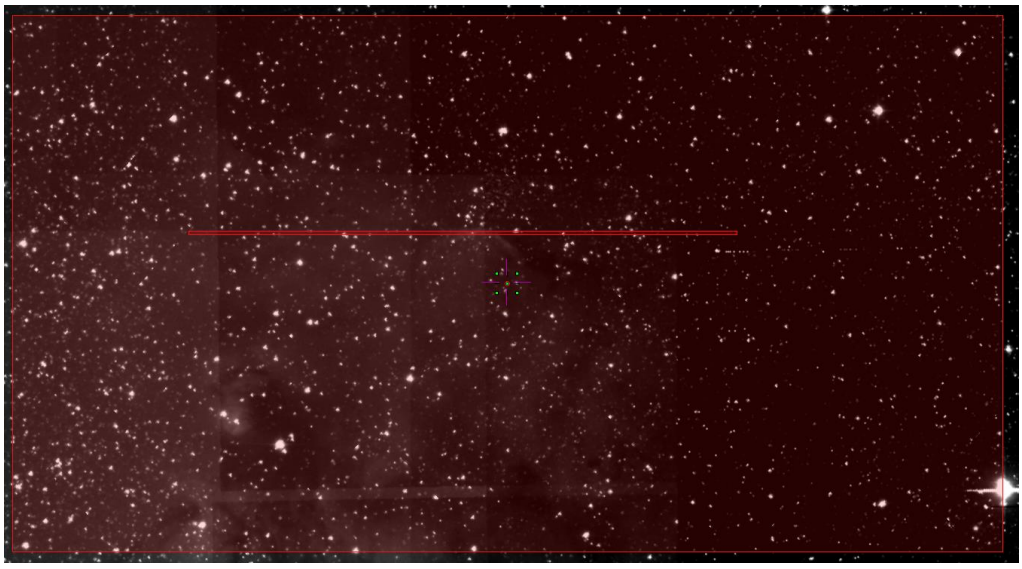
IPHAS



Slit position
Autoguider

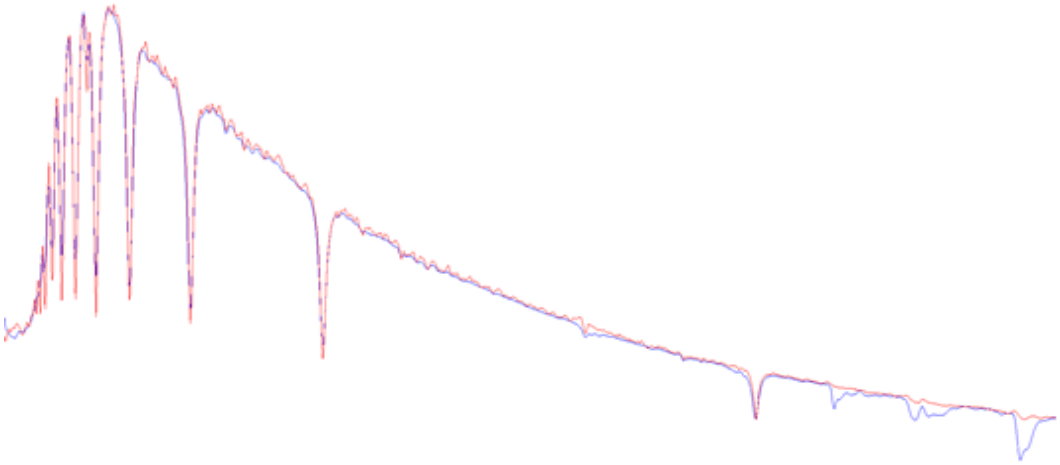


Slit position
IPHAS

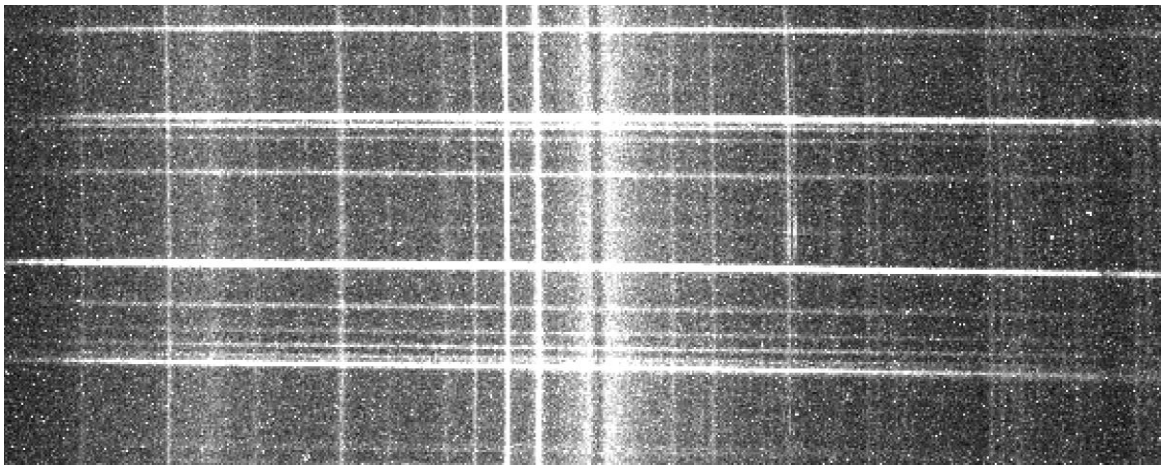


Instrumental Response and 2D Spectrum

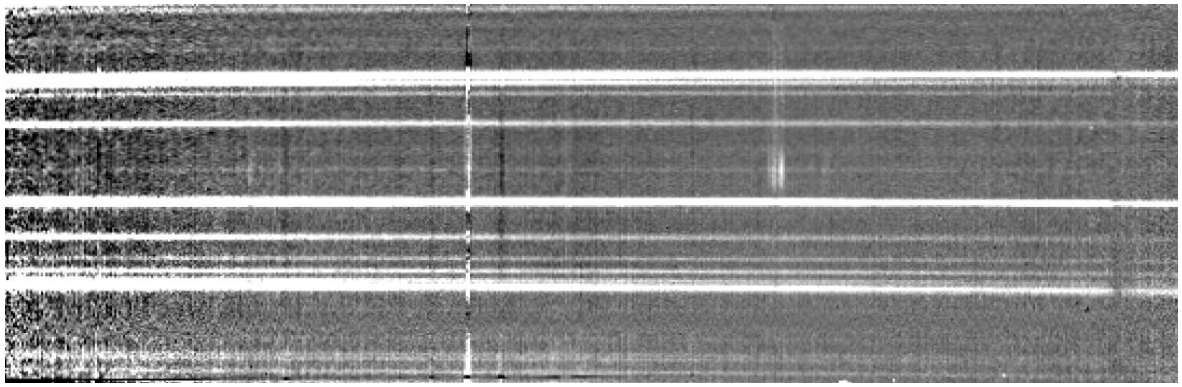
Instrumental response (red = theoritical ref star spectrum ; blue = acquired ref star spectrum)



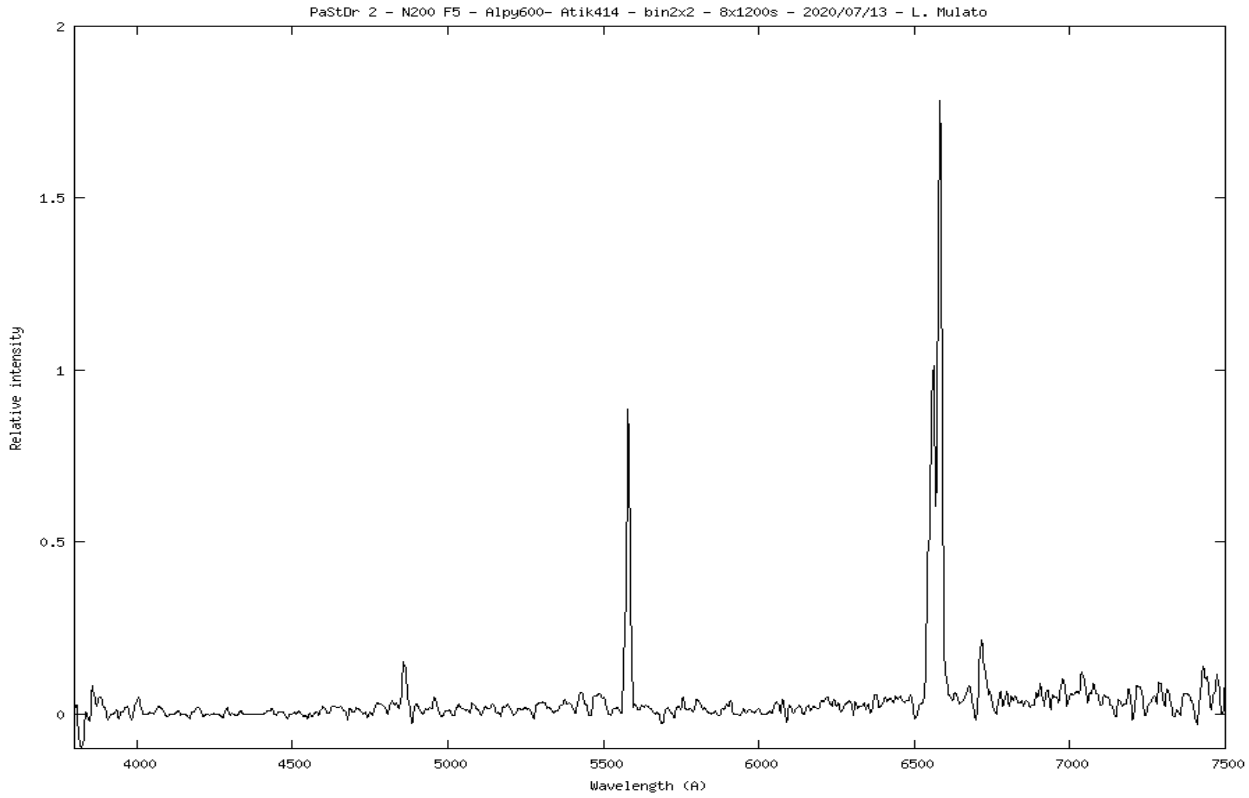
2D Raw spectrum



Processed 2D spectrum



Results



Comments:

Lines detected : [NII] >> Ha, weak H-beta, weak [SII].
No [O III], maybe there is [O III] emission elsewhere in the nebula, narrow band images are being taken. Airglow at 5578 A.
The relative intensities of Ha and [NII] 6583 is not very reliable because the object is embedded in a large HII region that is also emitting in Ha. But [N II] emission of PaStDr 2 is undoubtedly much stronger than its Ha emission.

If [N II] >> Ha is confirmed, then PaStDr 2 is likely a PN, maybe an evolved and low excitation PN.