FEROS
Post Commissioning IV
Status and Plans



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Monday 3:00pm CLST November 25th, 2002
La Silla/Vitacura

Agenda

- 1) Project review [J.D.Pritchard]
  - (i) InfraStructure
  - (ii) Computing
  - (iii) FEROS disassembly, transport, reassembly and alignment
  - (iv) Adpater
  - (v) Commissioning III
  - (vi) Modifications between Commissioning III & IV
  - (vii) Commissioning IV
- 2) Issues to be resolved
  - (i) Overall efficiency
  - (ii) Calibration in the blue
- 3) Plans and possibilities
  - (i) New science fibres
  - (ii) New calibration fibres
  - (iii) FCU modifications:
    - a) new filters?
    - b) New design?
  - (iv) High reflectivity M3
  - (v) New Fibre Head
  - (vi) New Adapter with significant redesign
  - (vii) Technical CCD, back to small format?
- 4) Review of project management

InfraStructure

- FEROS Room
- FEROS Climate Controlled Room

Computing

- BIAS PCs
- Archival PC
- TCS
- Observing Environment (OH + OFF)

Moving FEROS

- Disassembly
- Transportation
- Reassembly and Alignment

Adapter

- Design
- Performance

Commissioning III

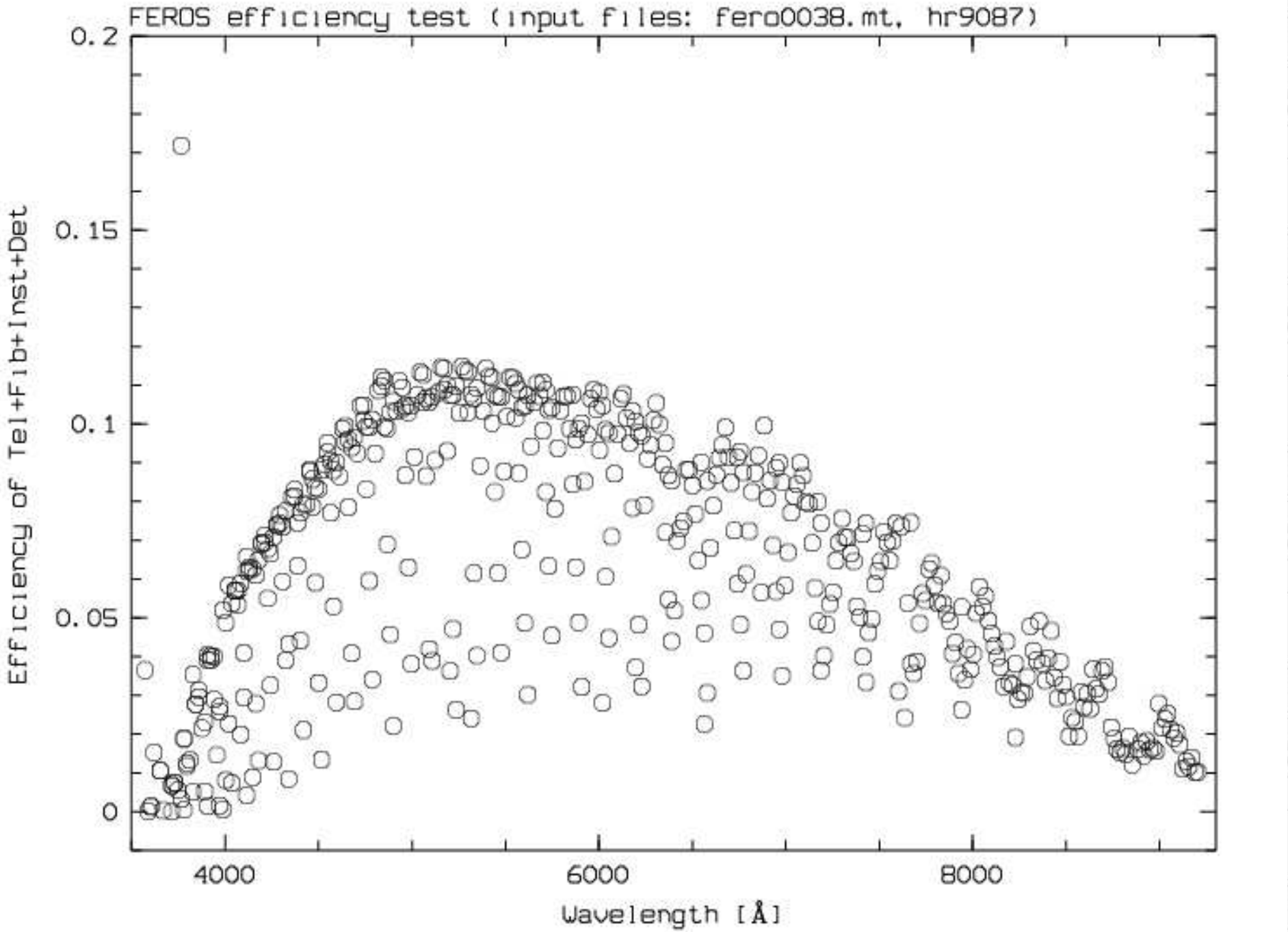
- Delayed by opto-mechnical issues
- Poor weather
- Maximum efficiency obtained ~6.6%

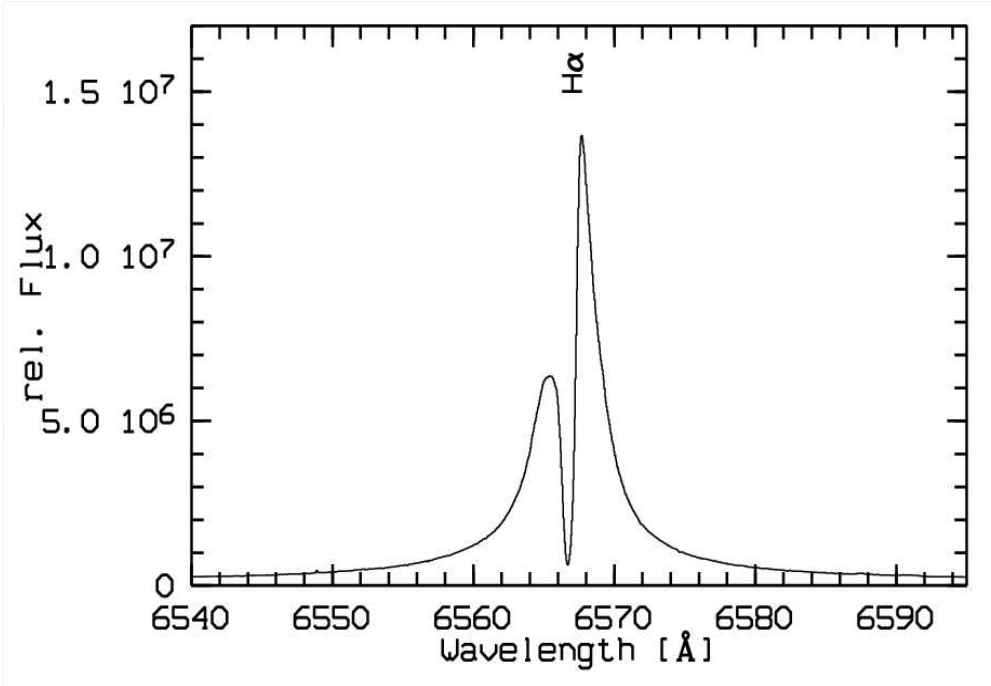
Modifications between Commissioning III & IV

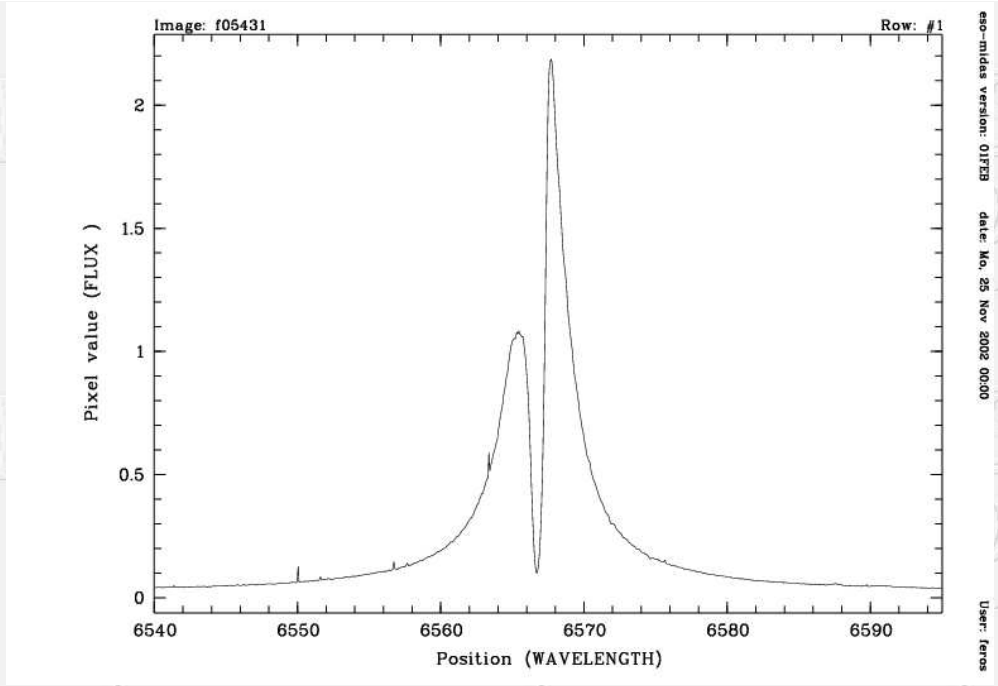
- Adapter
- FibreHead, fibres and ball lenses

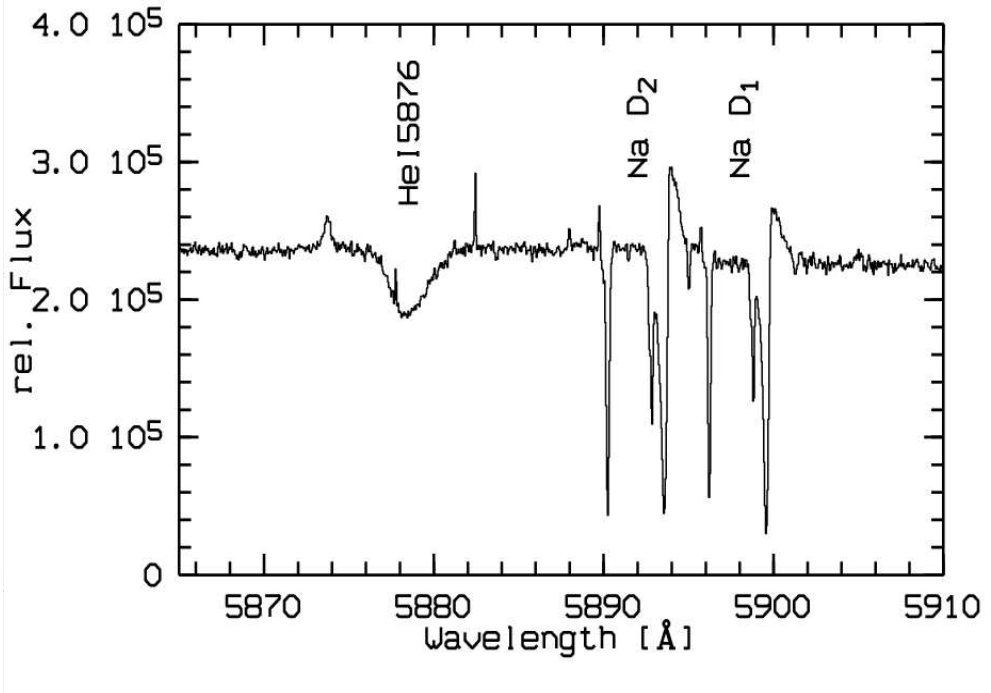
Commissioning IV

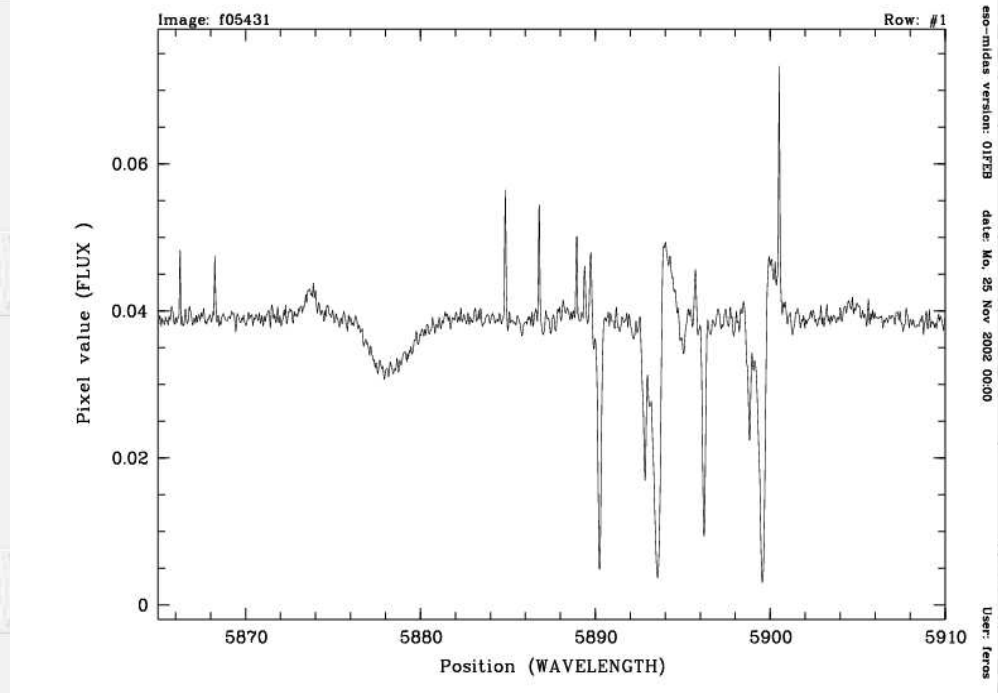
- 2 Nights + 10 half nights.
- 11.5% efficiency.

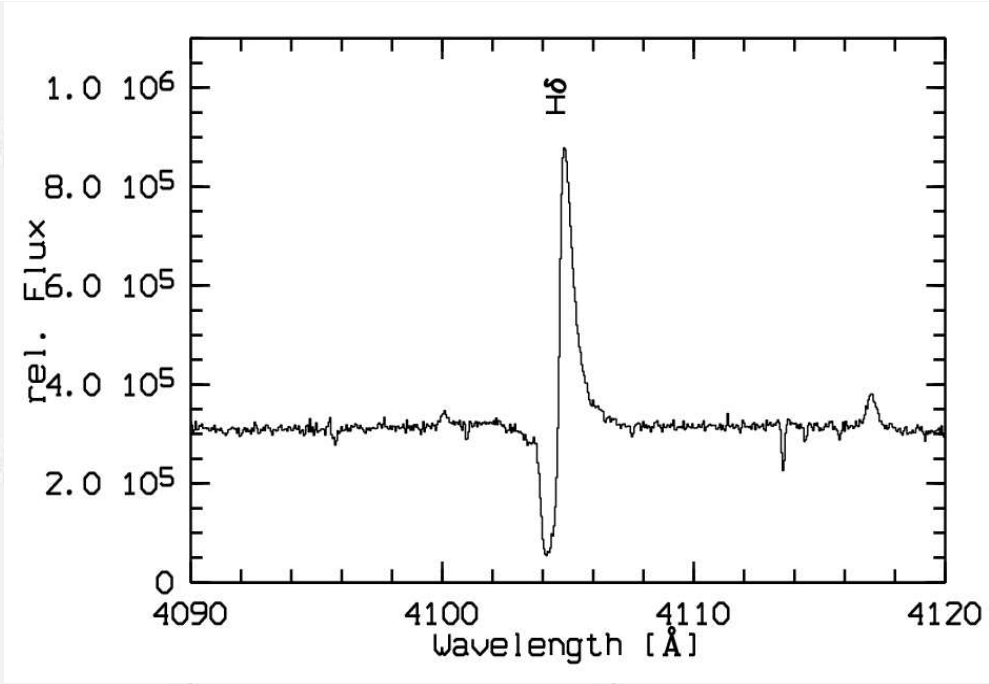

FEROS efficiency test (input files: fero0038.mt, hr9087)
Efficiency of Tel+Flb+Inst+Det
0.2
0.15
0.1
0.05
0
4000
6000
8000
Wavelength [Å]

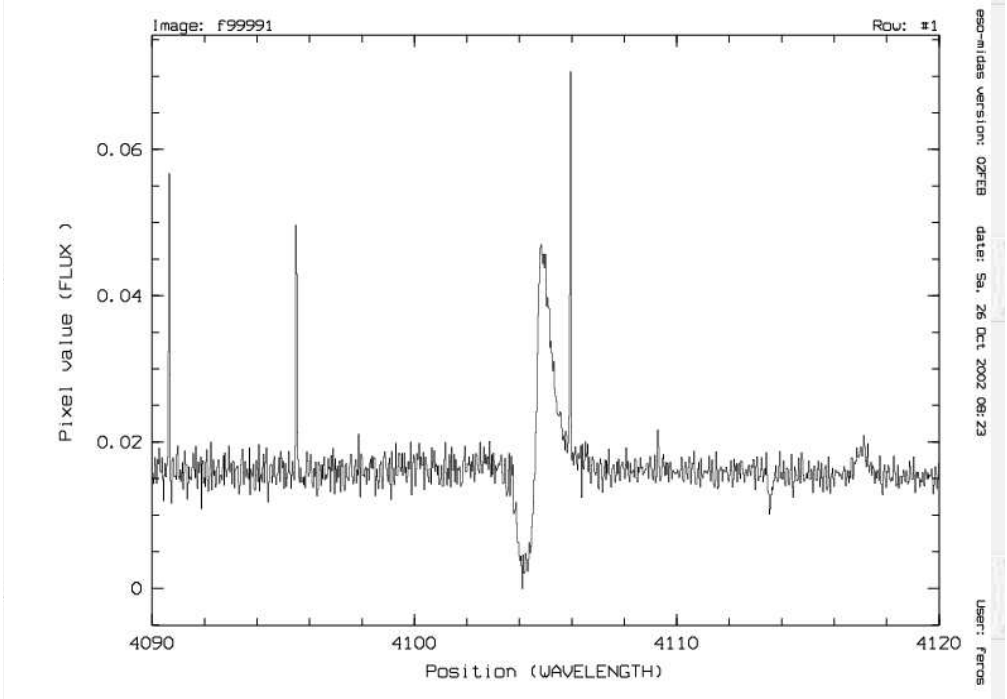

Hα
1.5 10^7
1.0 10^7
5.0 10^6
0
rel. Flux
6540
6550
6560
6570
6580
6590
Wavelength [Å]

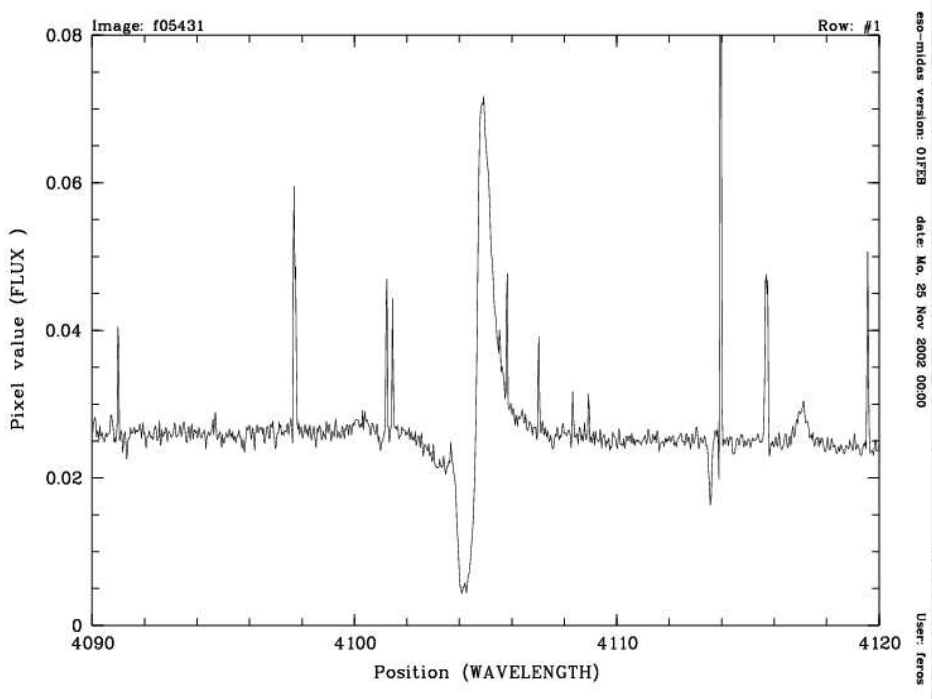

Image: f05431
Row: #1
Pixel value (FLUX)
2
1.5
1
0.5
0
6540
6550
6560
6570
6580
6590
Position (WAVELENGTH)
eso-midas version: 01FEB
date: Mo, 25 Nov 2002 00:00
User: feros


HeI5876
Na D2
Na D1
4.0 10^5
3.0 10^5
2.0 10^5
1.0 10^5
0
rel. Flux
5870
5880
5890
5900
5910
Wavelength [Å]


Image: f05431
Row: #1
Pixel value (FLUX)
0.06
0.04
0.02
0
5870
5880
5890
5900
5910
Position (WAVELENGTH)
eso-midas version: 01FEB
date: Mo, 25 Nov 2002 00:00
User: feros


Hδ
rel. Flux
1.0 10^6
8.0 10^5
6.0 10^5
4.0 10^5
2.0 10^5
0
4090
4100
4110
4120
Wavelength [Å]


Image: f99991
Row: #1
Pixel value (FLUX)
0.06
0.04
0.02
0
4090
4100
4110
4120
Position (WAVELENGTH)
eso-midas version: 02FEB date: Sa, 26 Oct 2002 08:23
User: feros


Image: f05431
Row: #1
Pixel value (FLUX)
0.08
0.06
0.04
0.02
0
4090
4100
4110
4120
Position (WAVELENGTH)
eso-midas version: 01FEB date: Mo, 25 Nov 2002 00:00
User: feros

Remaining Issues to be resolved

- Efficiency
  - Refabrication of fibre head
- Calibration Lamps
  - Overall Flux levels
  - Flux in the blue

Plans and Possibilities...

- Plans and possibilities
  - New Fibre Head
  - New Science fibres
  - New Calibration fibres
  - FCU modifications:
    - New filters?
    - New design?
  - High reflectivity M3
  - New Adapter with significant redesign
  - Technical CCD, back to small format?

Project Management Review

- How did I do?