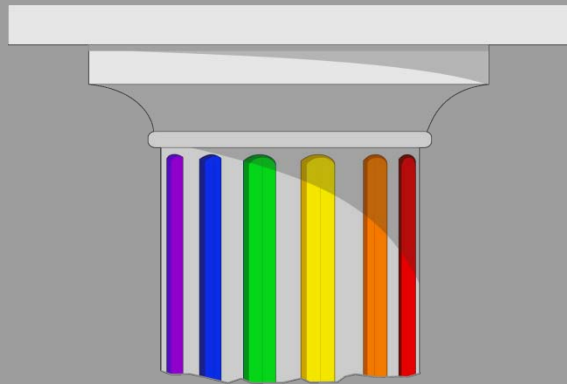


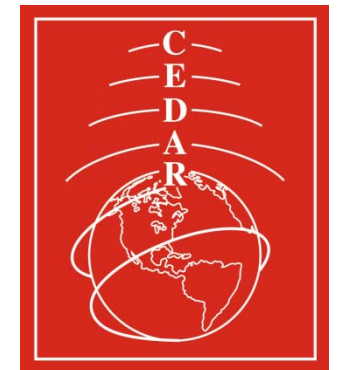
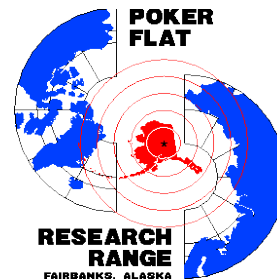
CESAR



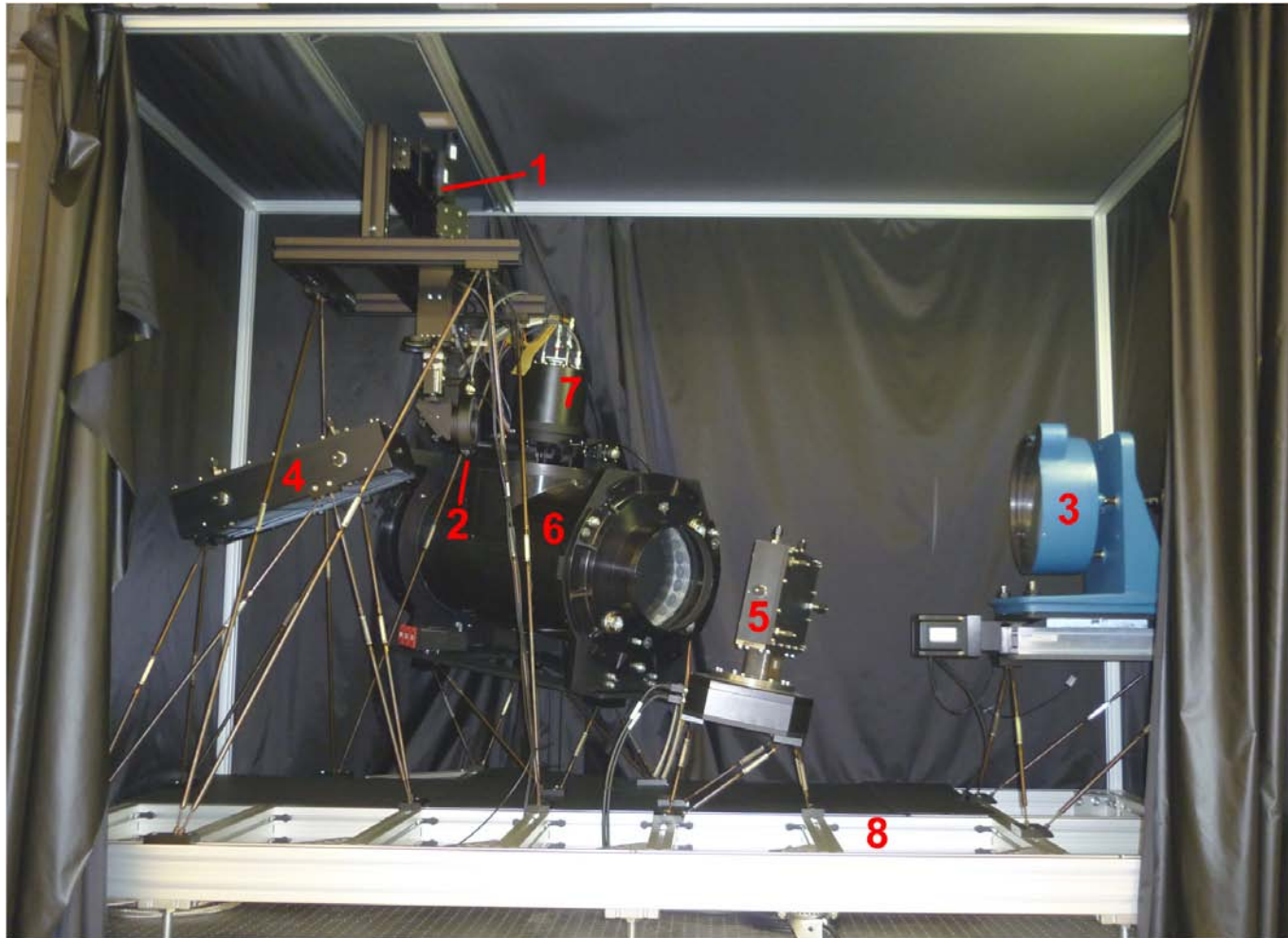
The New Echelle Spectrograph at Poker Flat

Tom Slanger and Daniel Matsiev

Physical Sciences, SRI International



Photograph of CESAR



- (1) fore-optics
- (2) shutter
- (3) collimator
- (4) echelle
- (5) cross-disperser
- (6) camera
- (7) CCD head
- (8) base frame

One side of the light shield has been opened up. Note the stress-free kinematic hexapod mounts, the structural aluminum profile base frame, and the "false floor" approach for cable management.

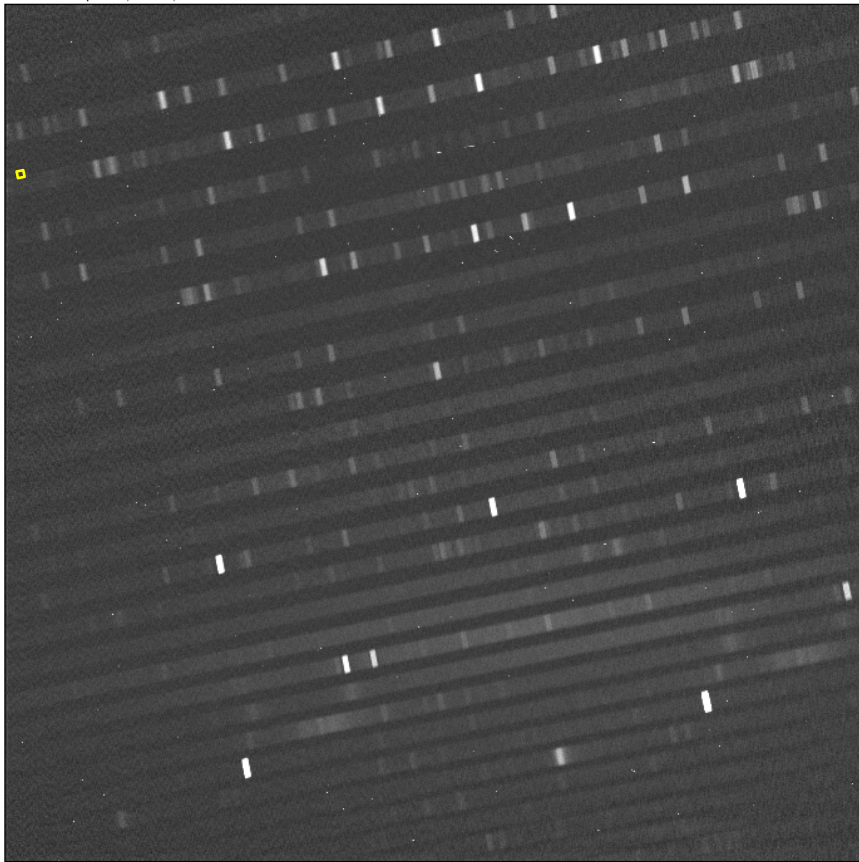
Aurora at Poker Flat



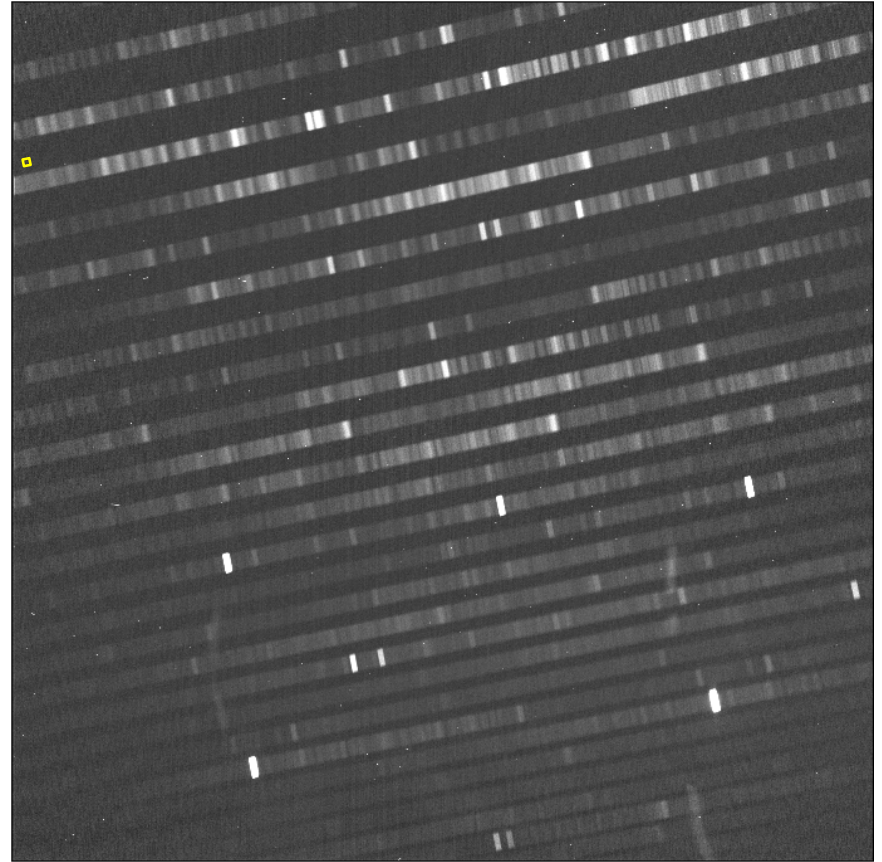
(C) CALVIN W. HALL
WWW.ALASKASAURORA.COM

CESAR Echellograms

2013-11-03, 25 min exposures, 5000 resolution, 1600 μm slit

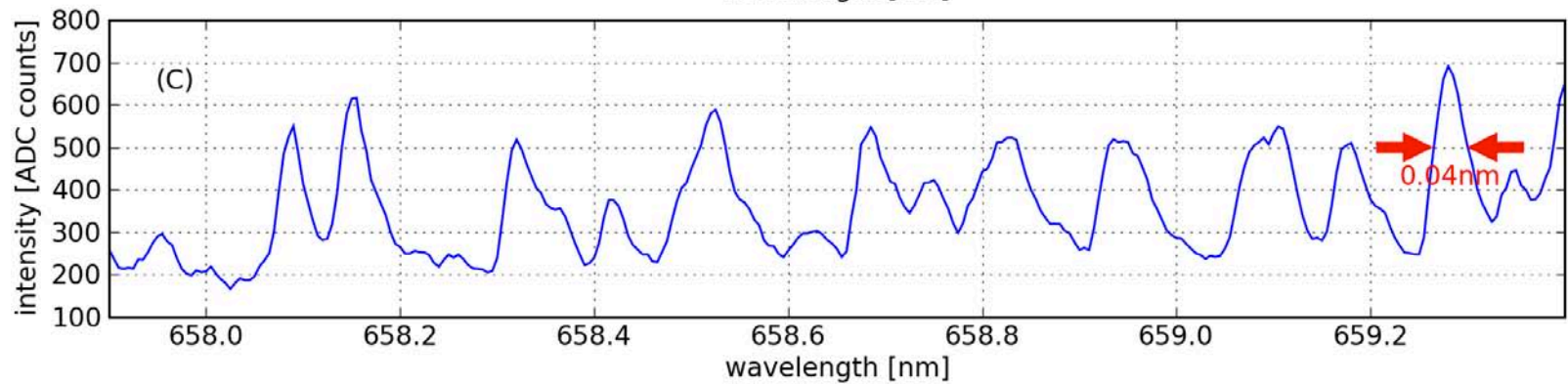
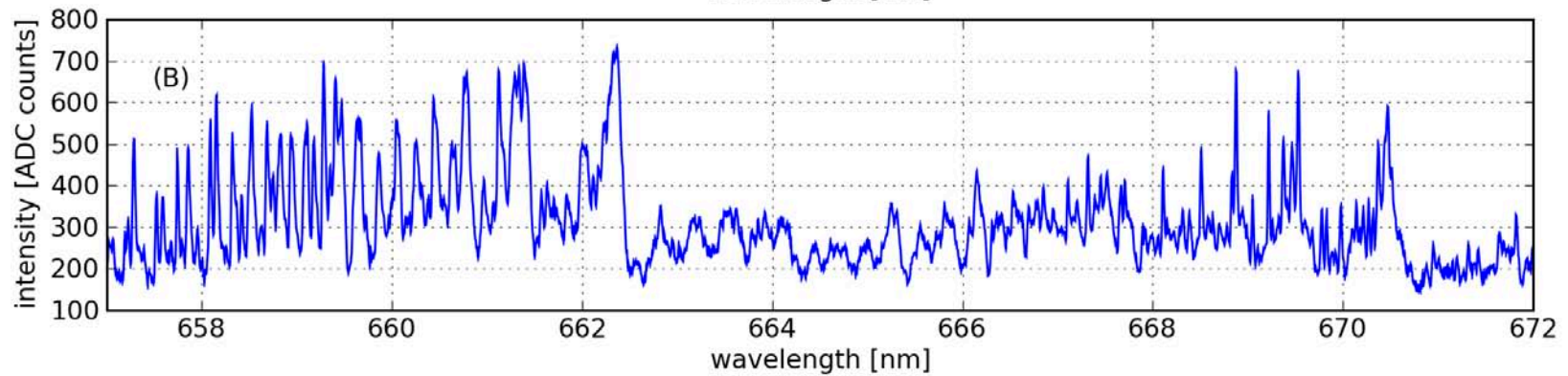
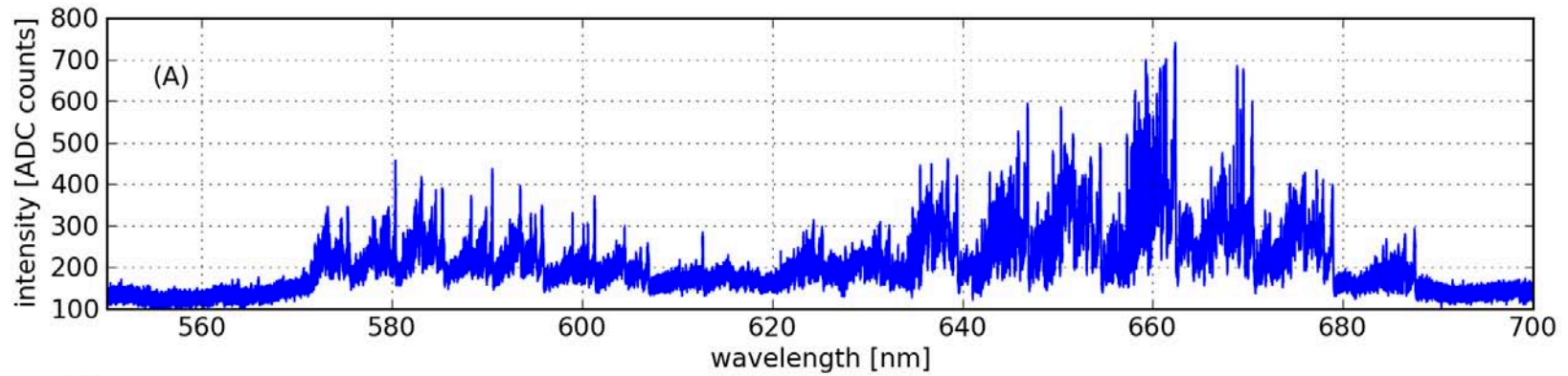


Exposure 01 - no aurora

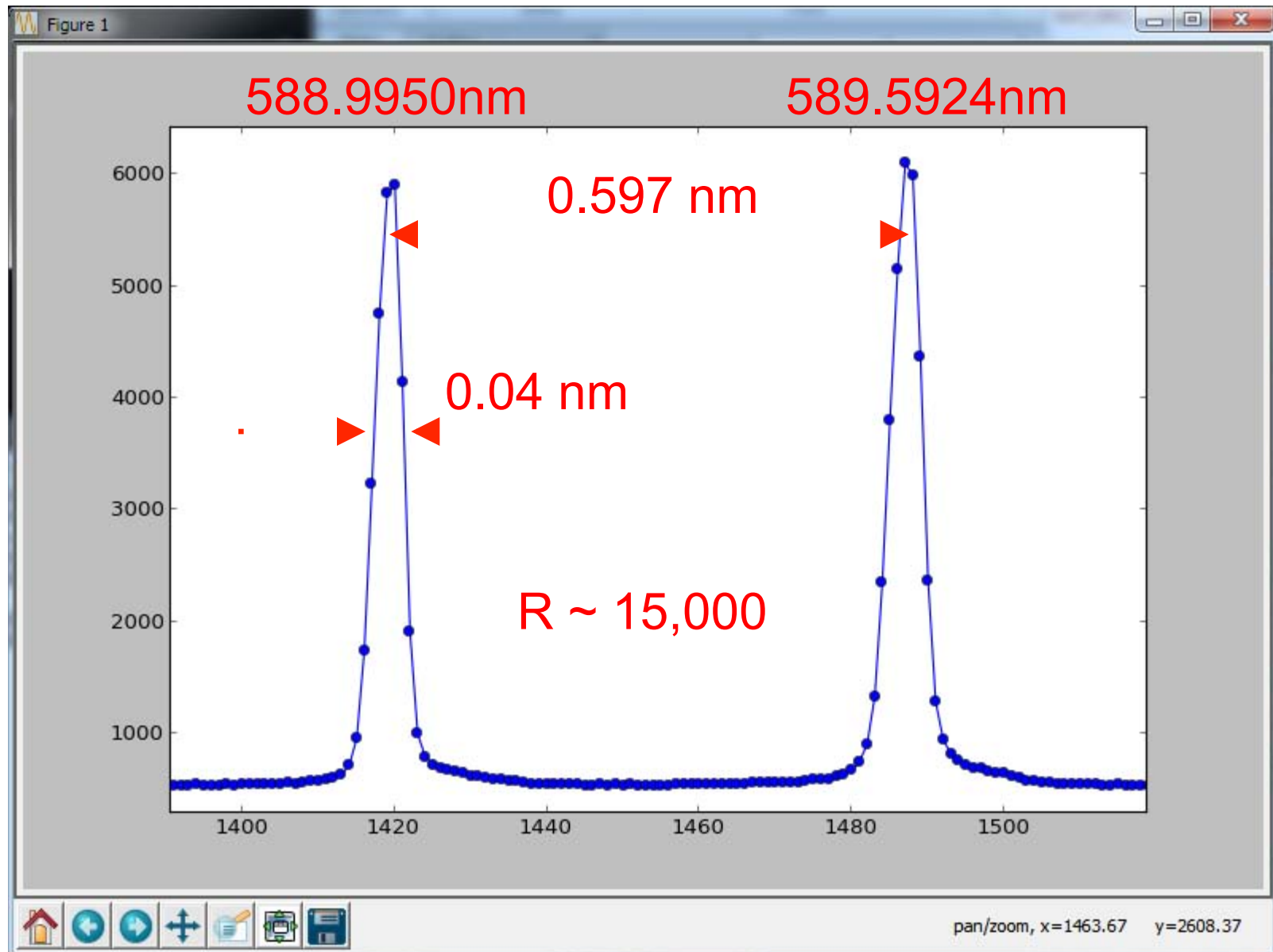


Exposure 12 - with aurora

N₂ discharge Laboratory Spectrum



Resolution: Na doublet

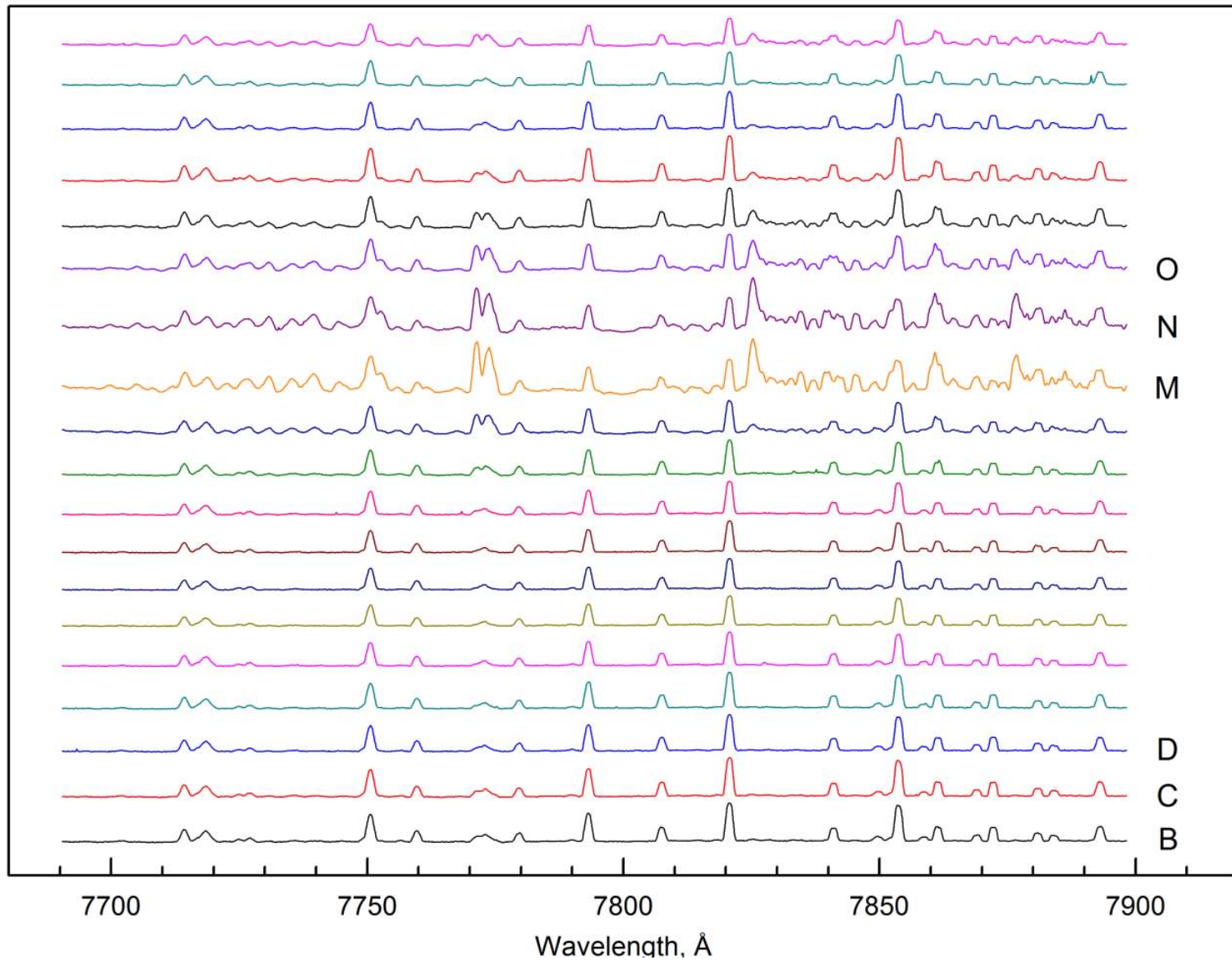


Poker Flat Observatory

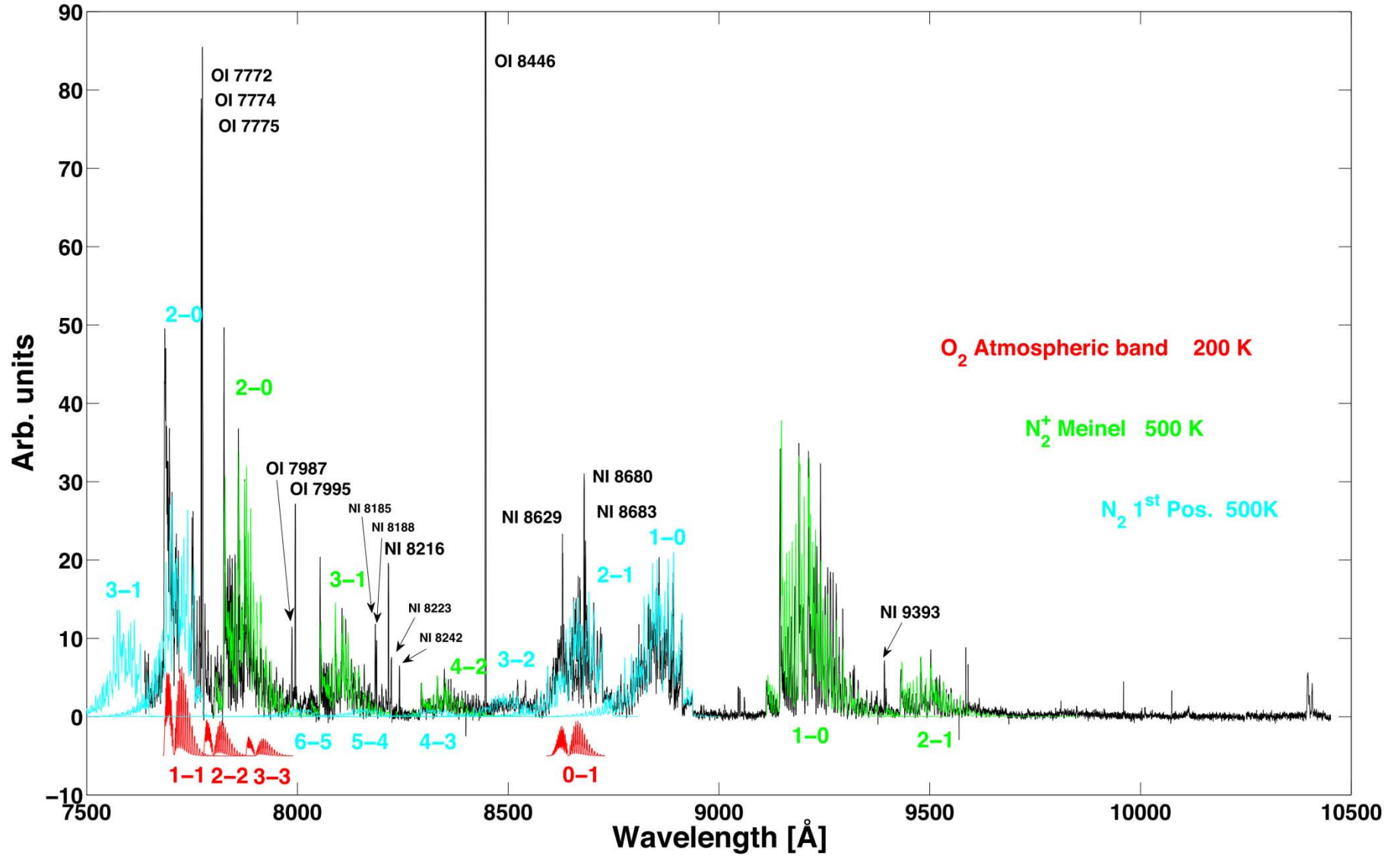


Temporal Evolution of the Sky Spectra

2013-11-03, 25 min exposures, 5000 resolution



Auroral Spectrum (Removed Nightglow)



In Progress

- Intensity calibration
- Data collection rate (auroral strength)
- Automated data reduction
- Data accessibility
- Synergy with AMISR and other instruments



The CESAR Team

Investigators:

- Tom Slanger (PI)
- Elizabeth Kendall (co-I)

SRI staff:

- Daniel Matsiev
- Martin Grill
- Kostas Kalogerakis
- William Olson

SRI postdocs:

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- Deepali Saran (Allylix Inc.)
- Riccardo Melchiorri (USRA)

SRI NSF-REU students:

- Eric Schiesser (U Rochester)
- Stefan Mellem (Google)
- Nicholas Cothard (U Rochester)

Graduate student:

- Michael Negale (Utah State)

Observatory:

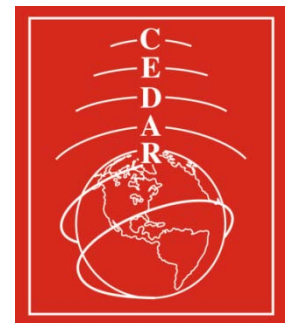
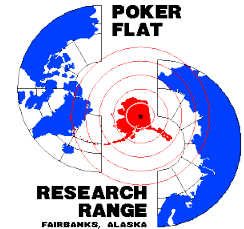
- Don Hampton (PFRR)

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- Steven Vogt (UCSC Astronomy)
- Matthew Radovan (UCSC)
- Jean Lacoursiere (Optics Adviser)

INO team:

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- Min Wang
- Michel Doucet
- Jean-Thomas Landry
- Daniel Lefebvre



This work was supported by the NSF-CEDAR grant AGS-1139142. The CESAR instrument was built under the NSF-Aeronomy MRI grant ATM-0723232.

