



Variable Star Section
BAA
British Astronomical Association

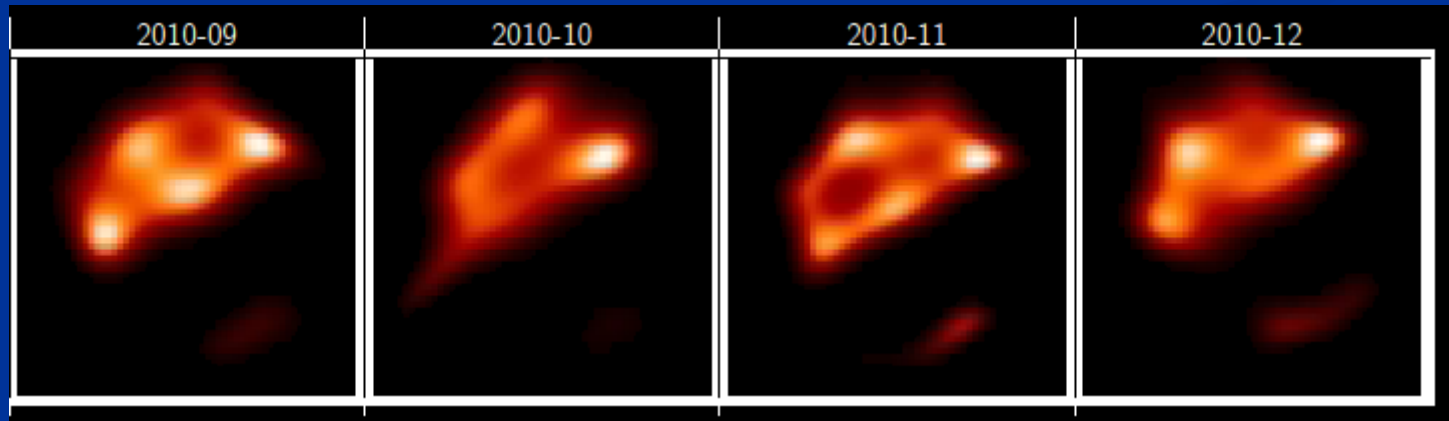
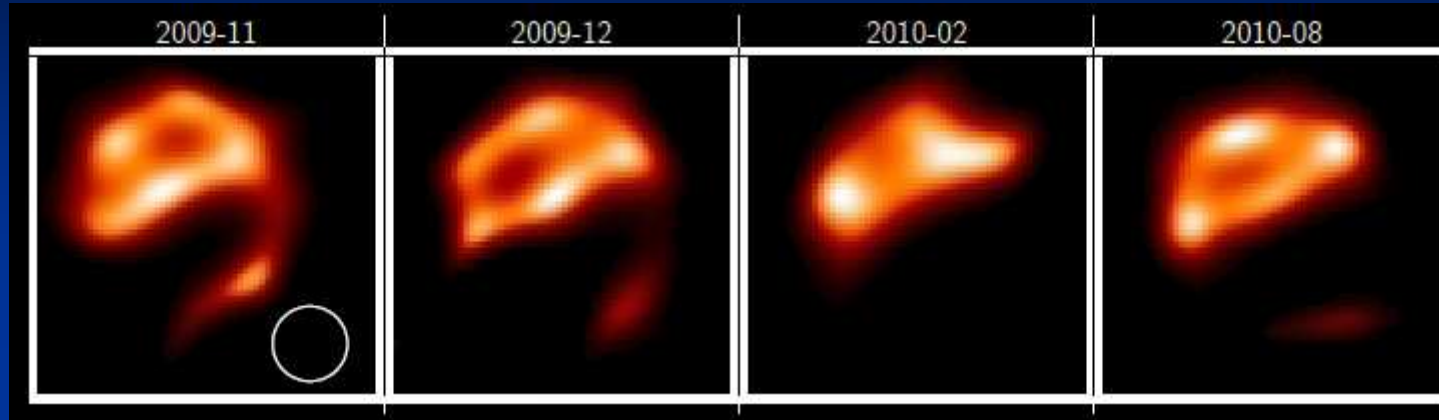
Monton House Hotel
October 2011

Epsilon Aurigae

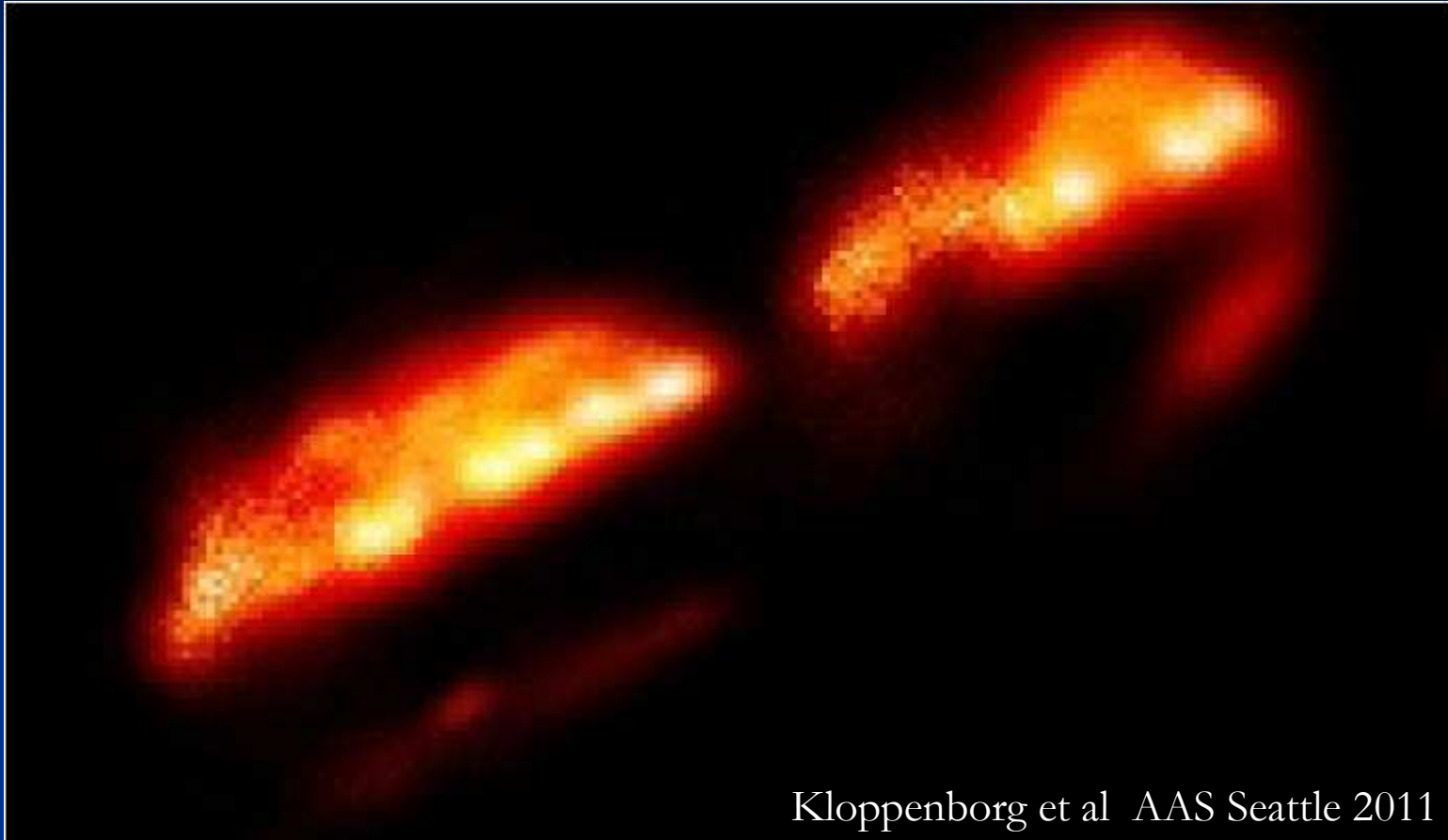
Spectroscopy (part II)

Robin Leadbeater

CHARA interferometry images



Composite CHARA image



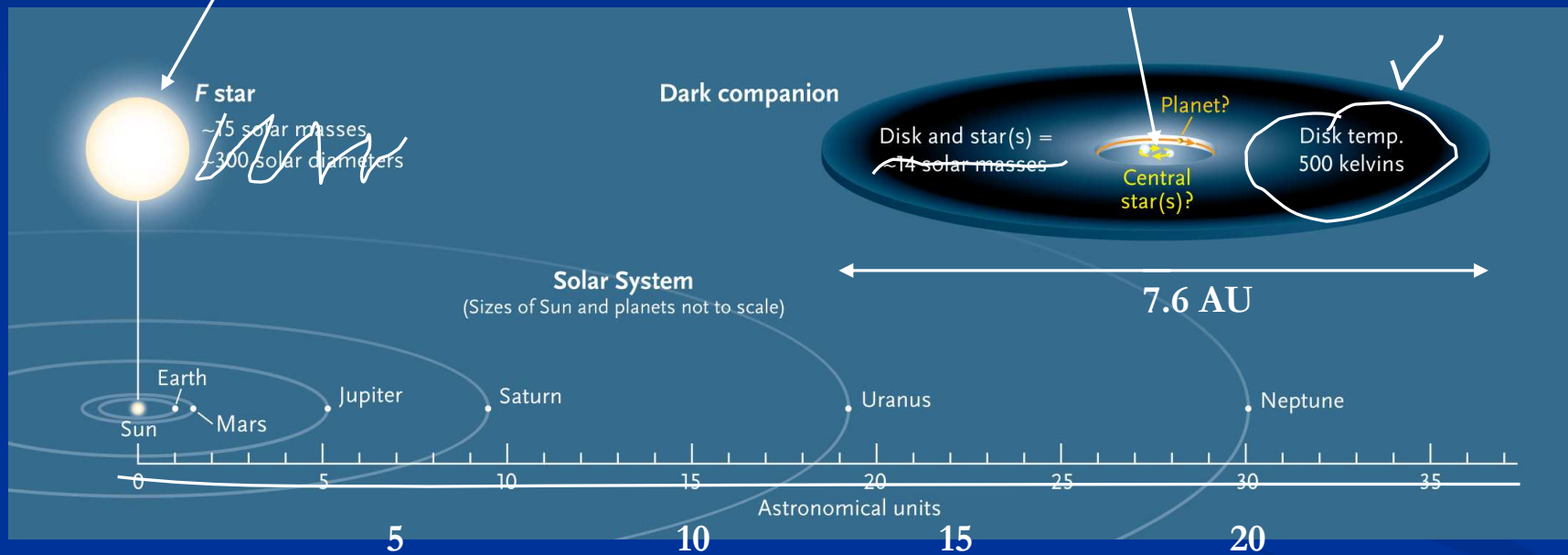
Kloppenborg et al AAS Seattle 2011

more results covering egress to come.....

REVISED LOW MASS MODEL

F0 II-III (Post AGB)
2.7 solar mass
135 solar diameter

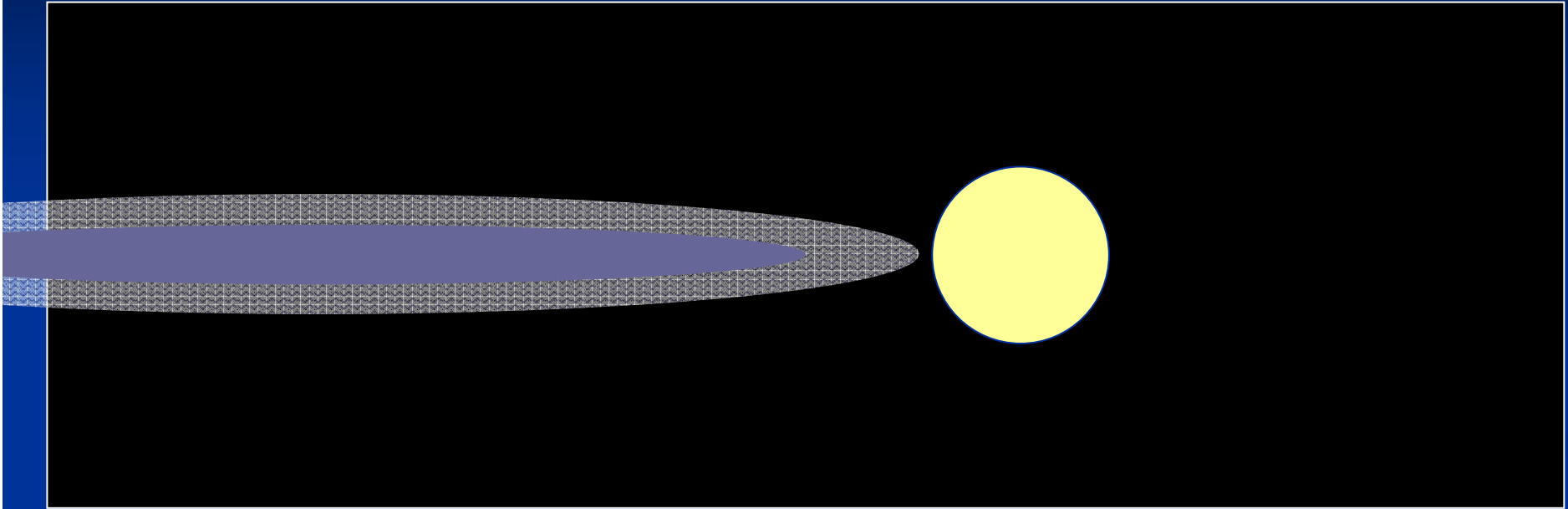
Single B5V star
5.9 solar mass

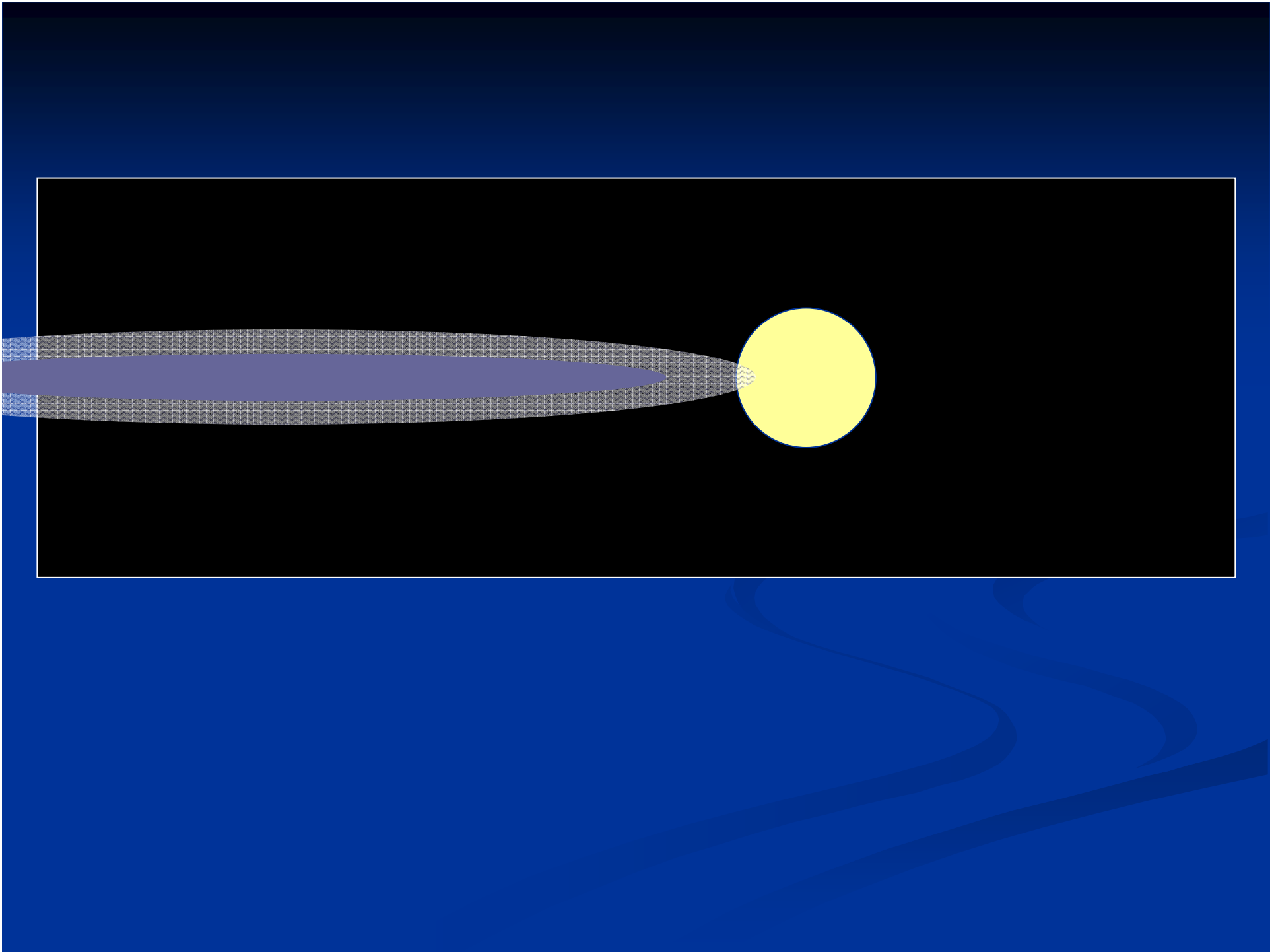


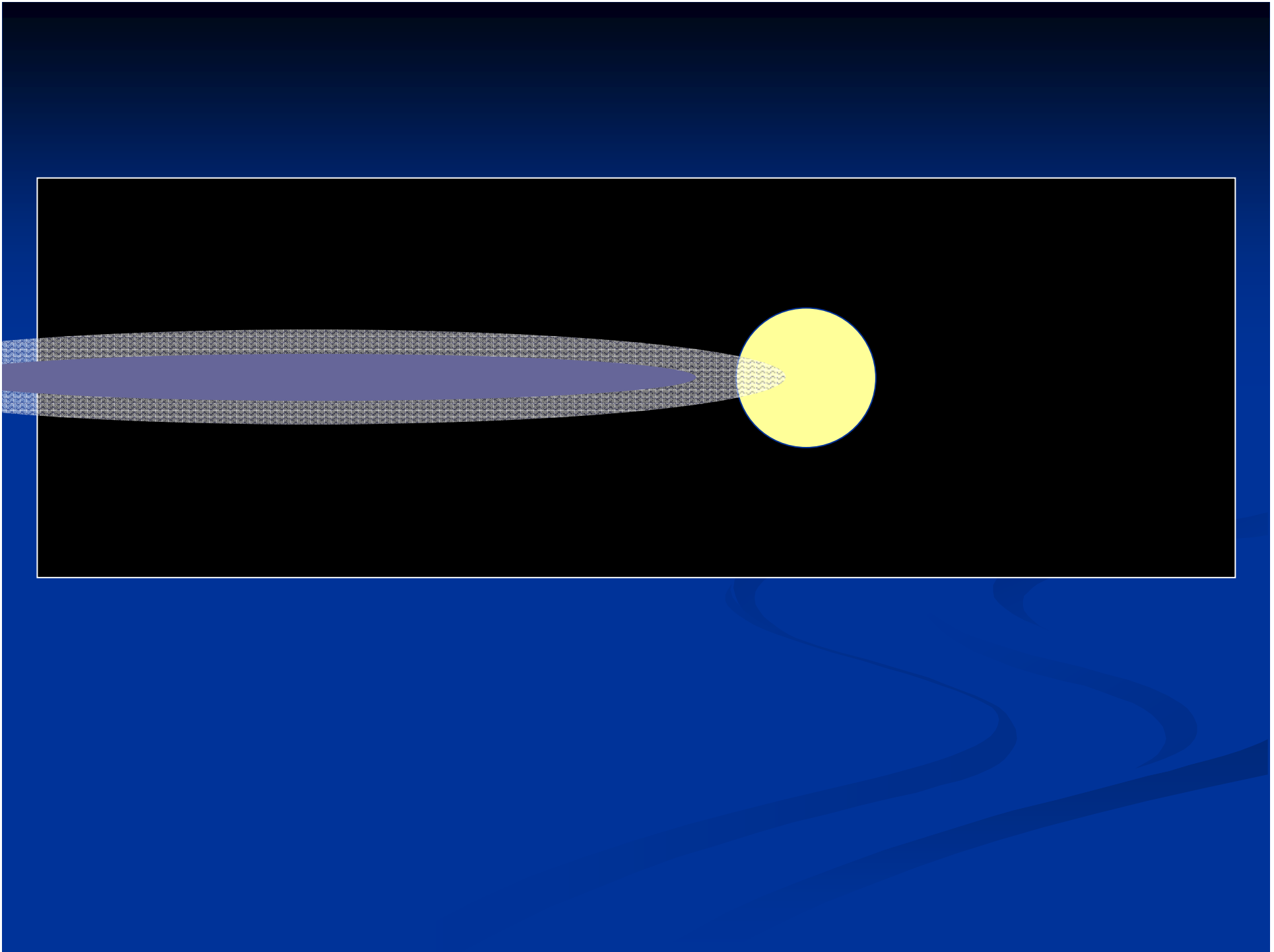
Original graphic Sky & Telescope.

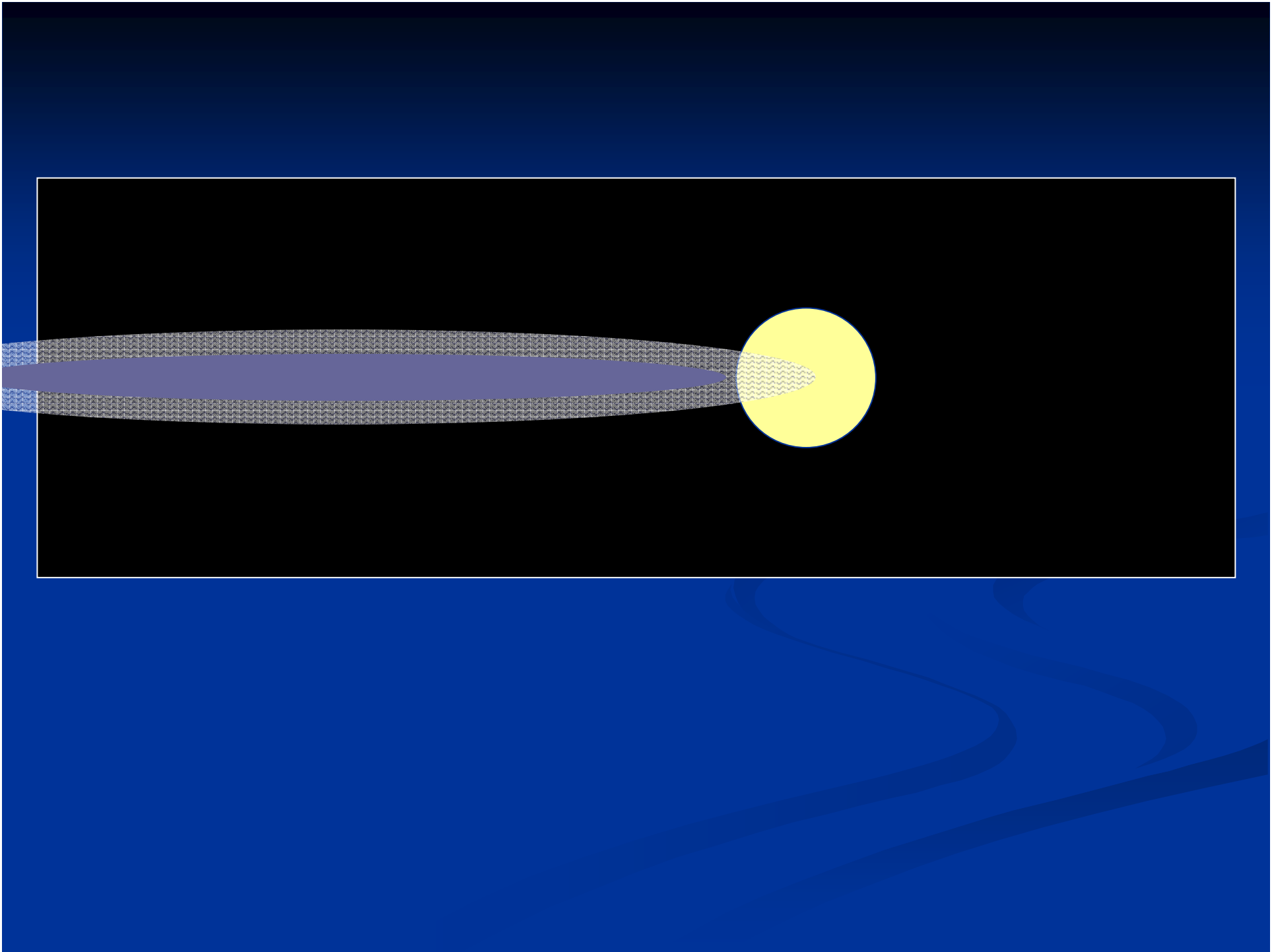
Modified data from Hoard, Howell & Stencel ApJ 2010

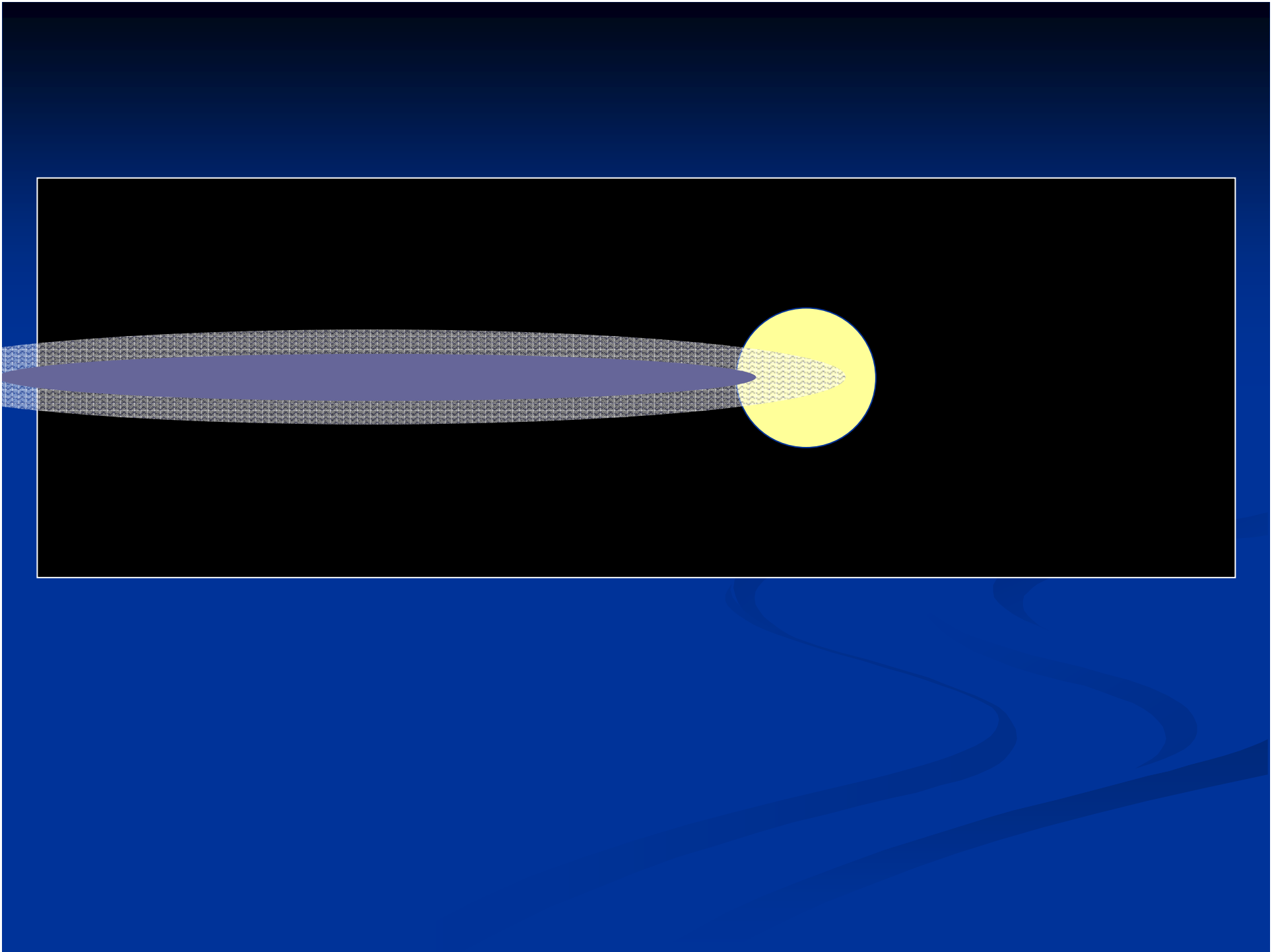
THE SPECTRUM OF THE ECLIPSING OBJECT DURING ECLIPSE

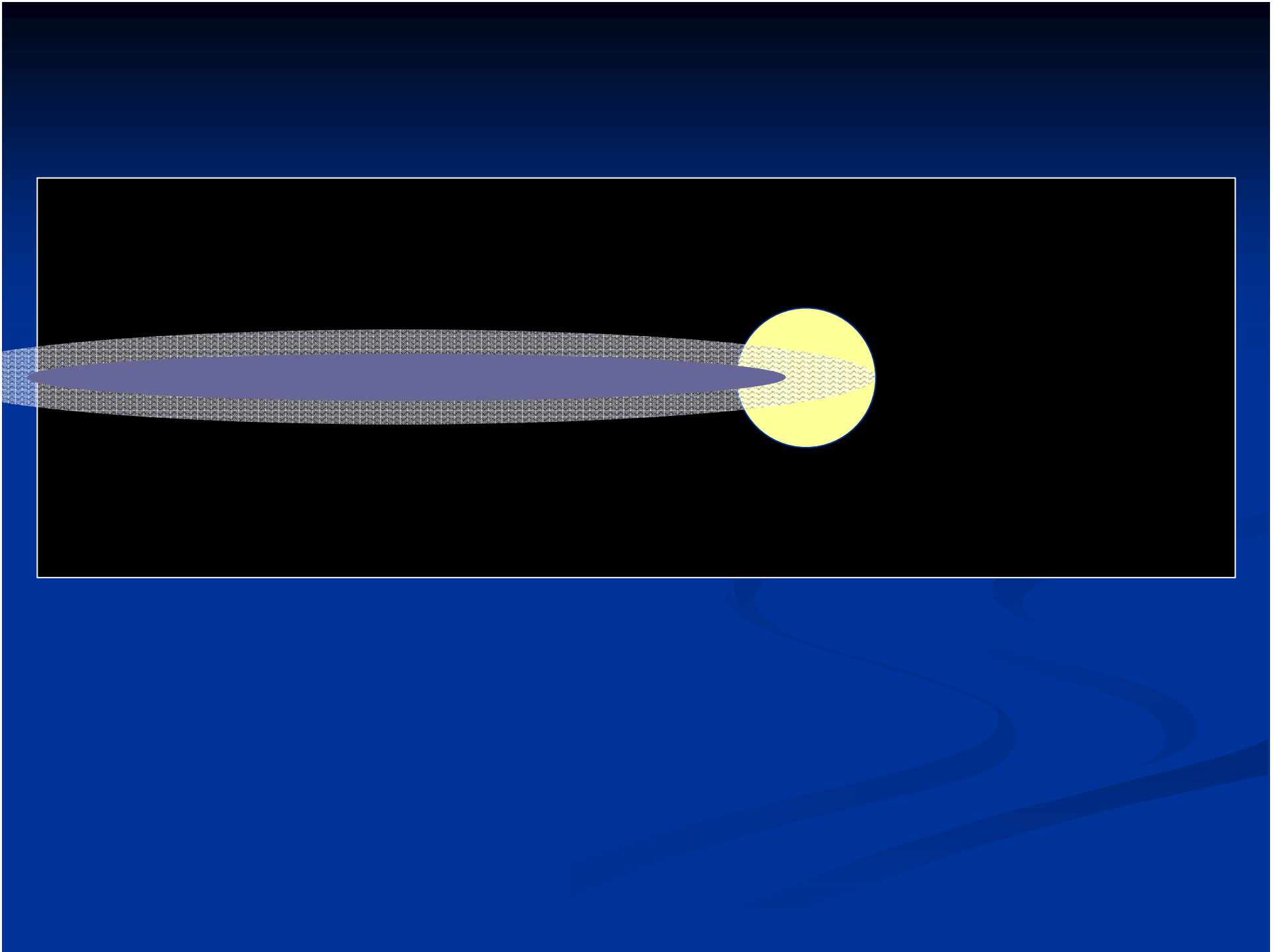


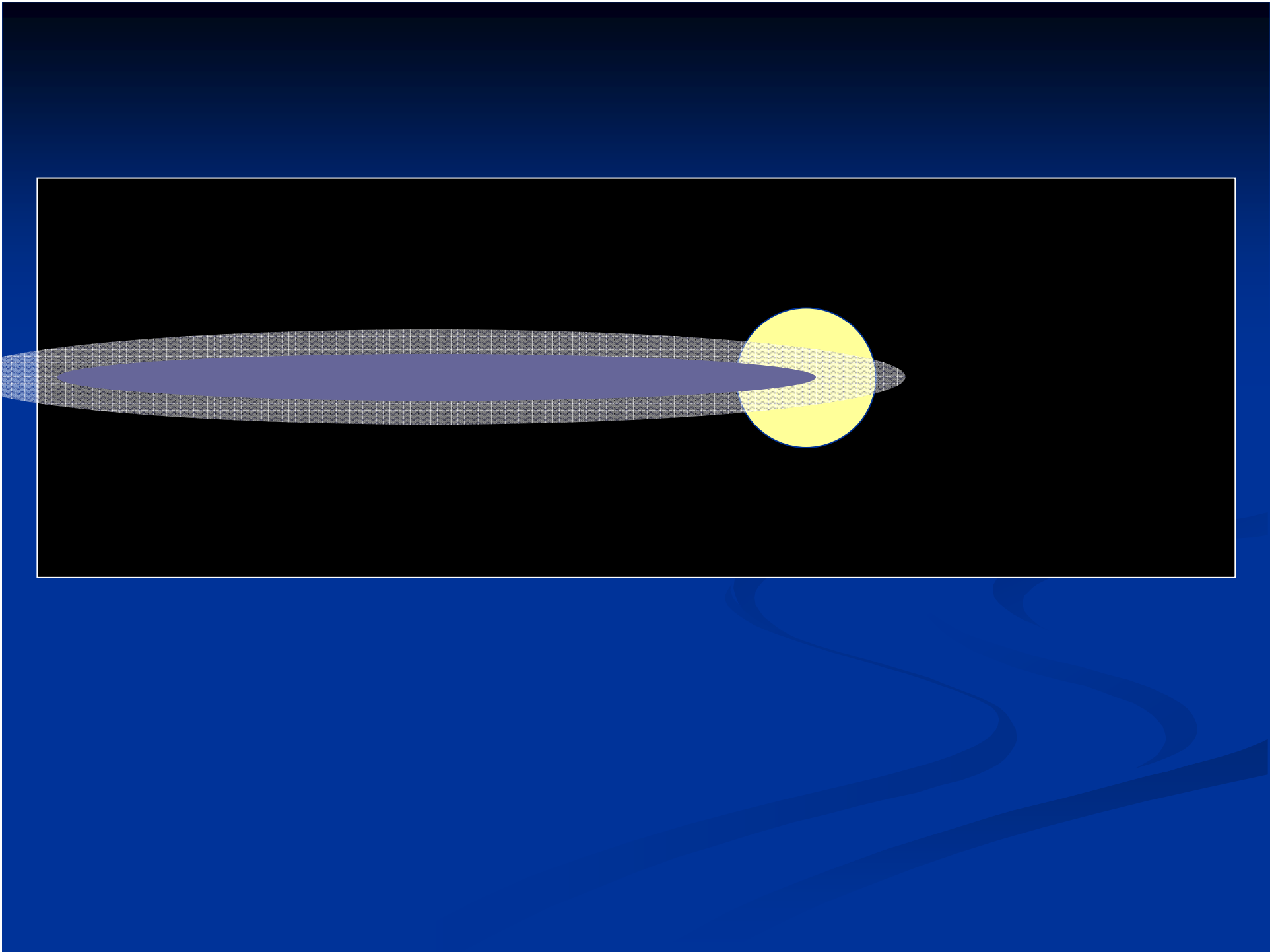


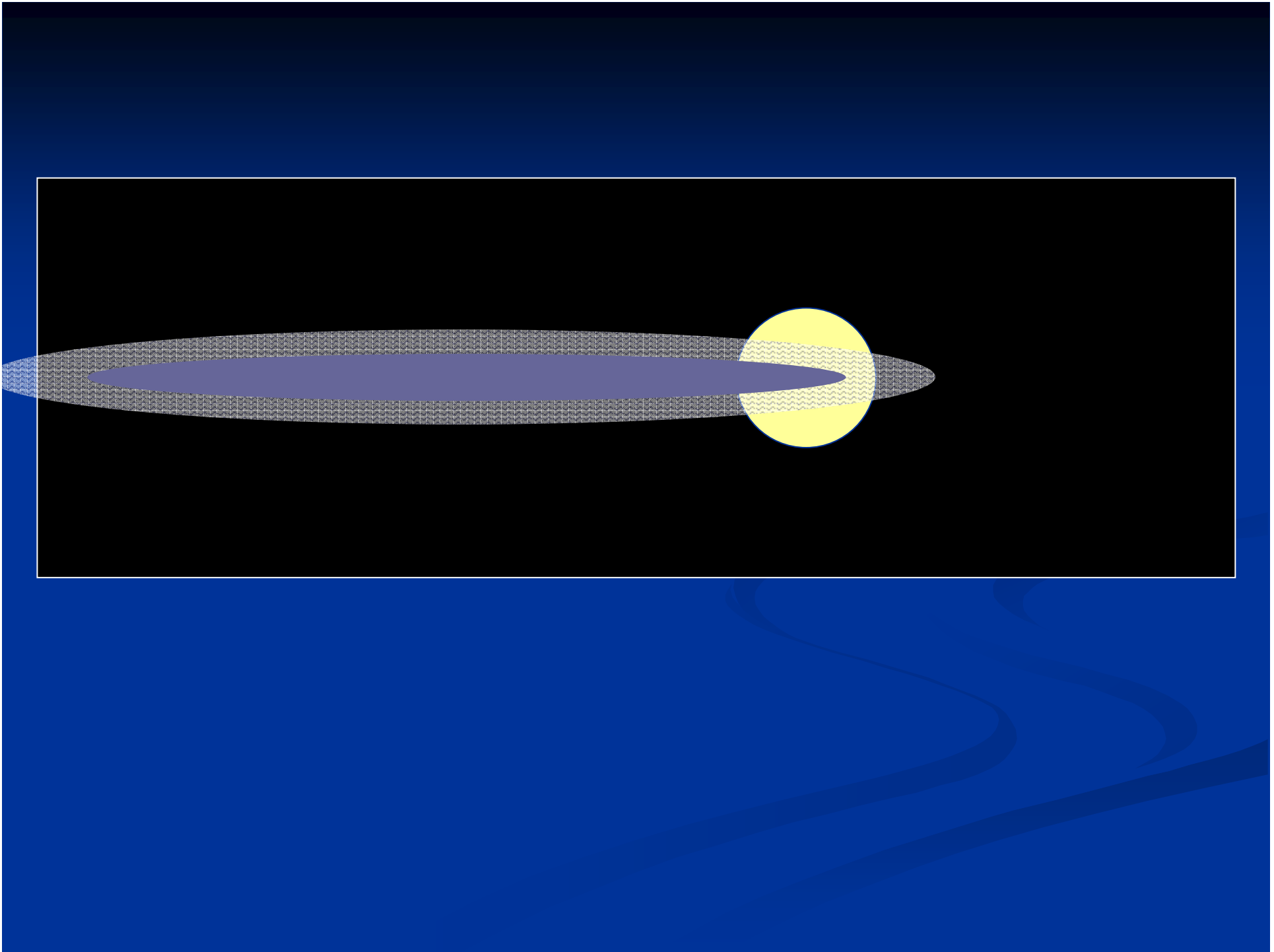


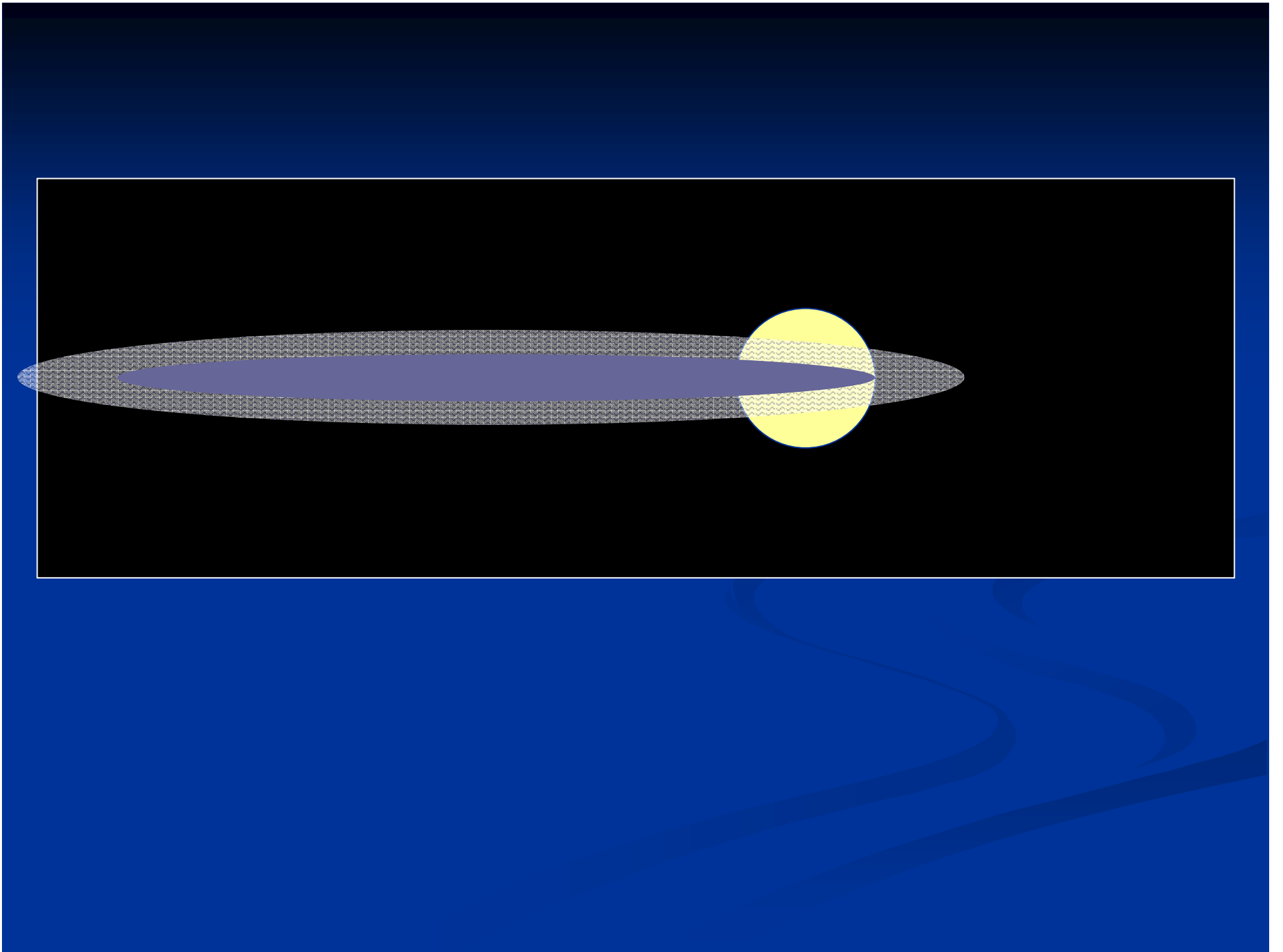


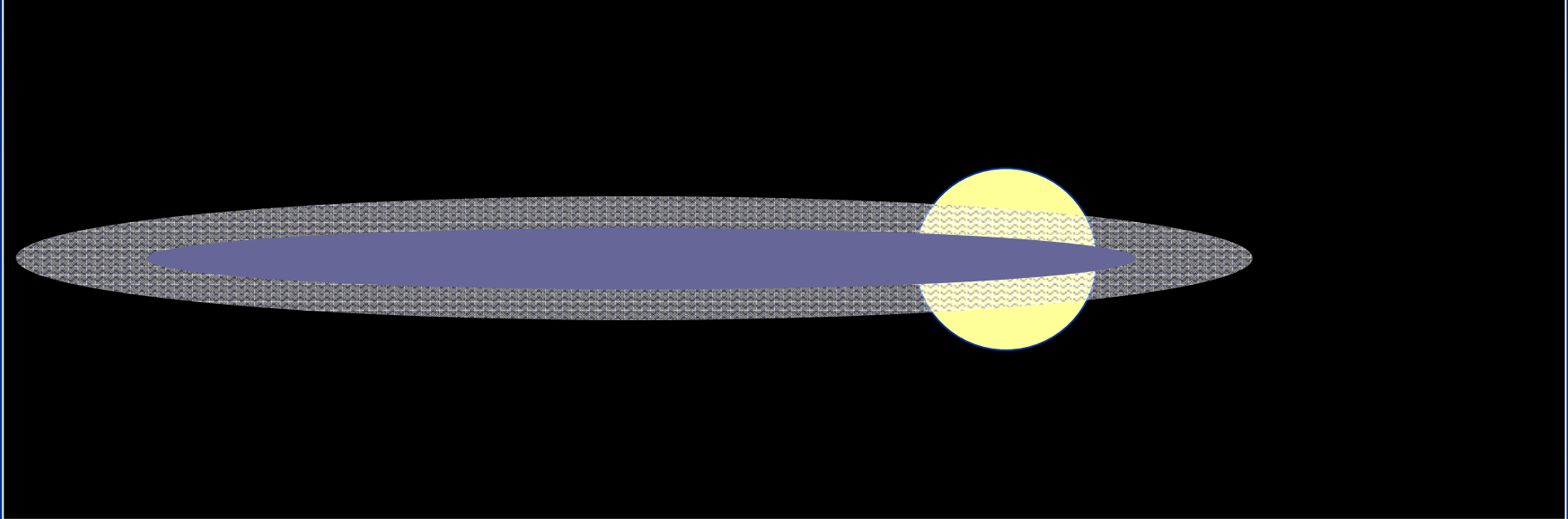


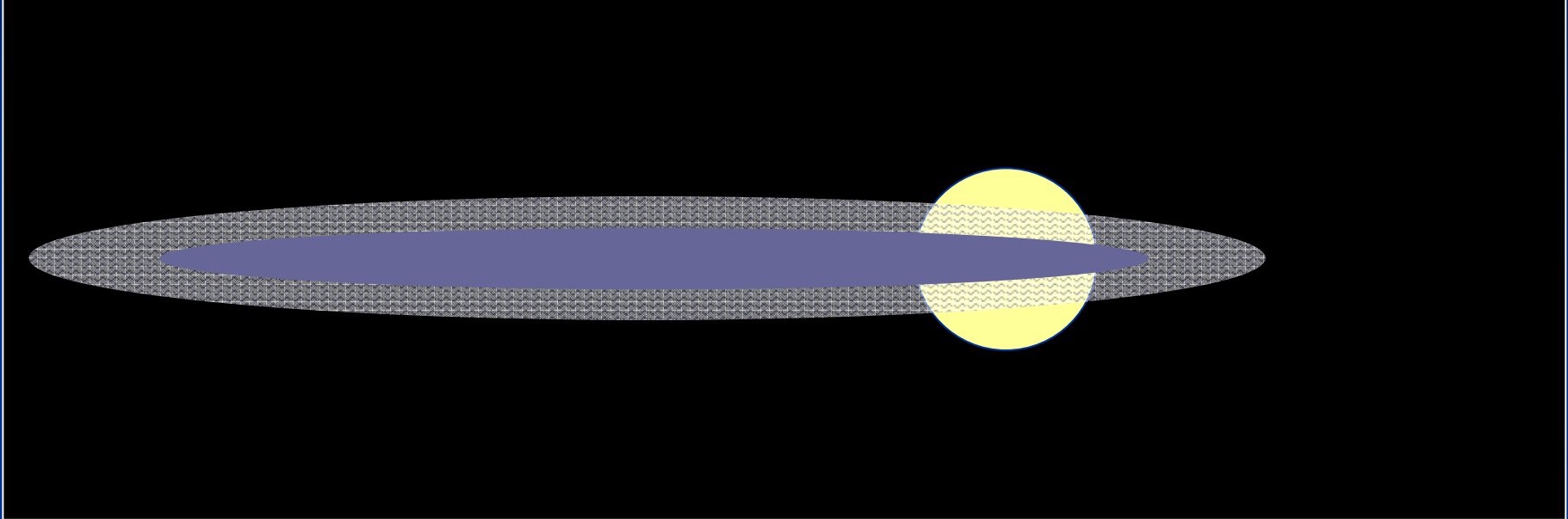




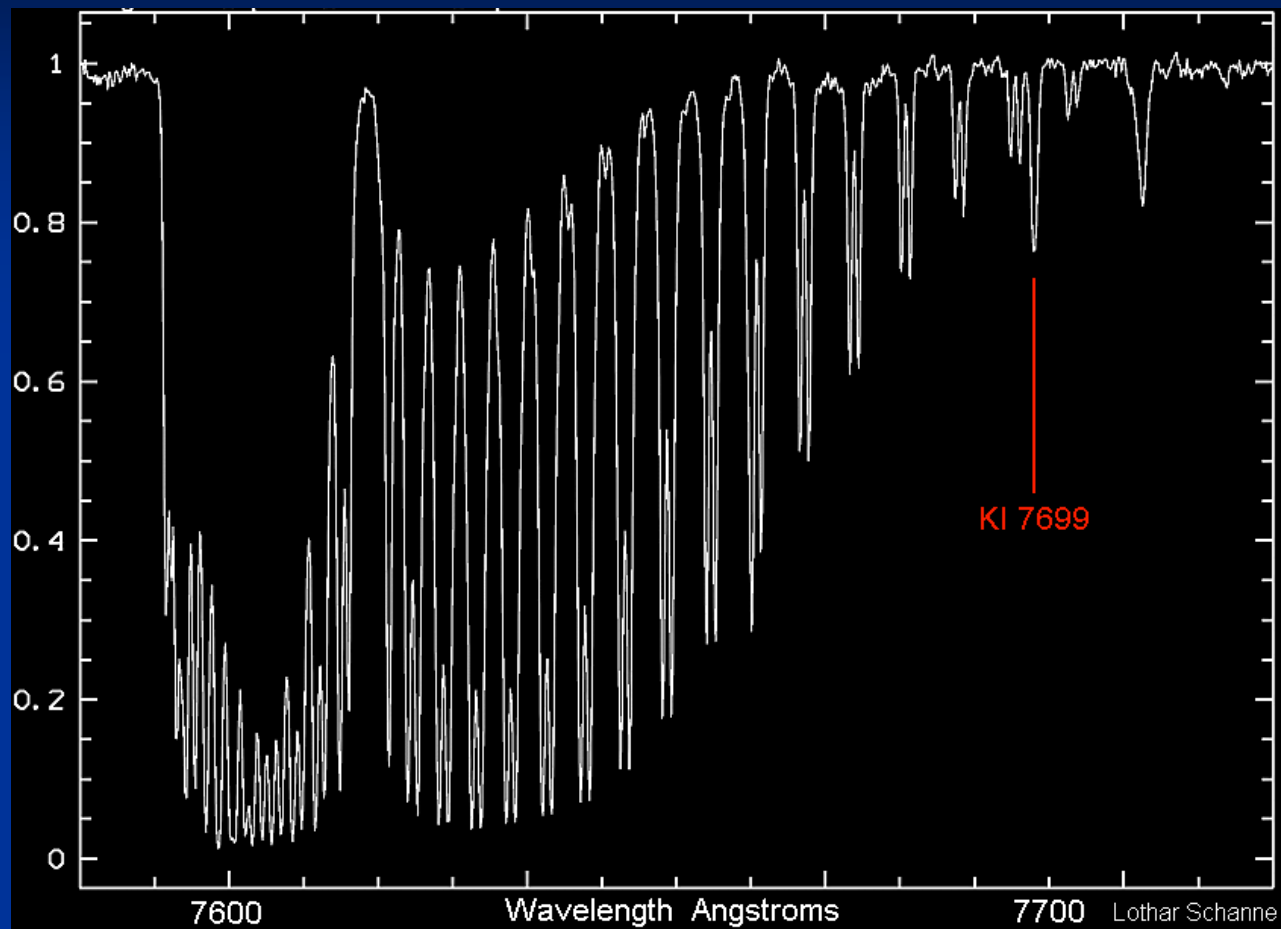




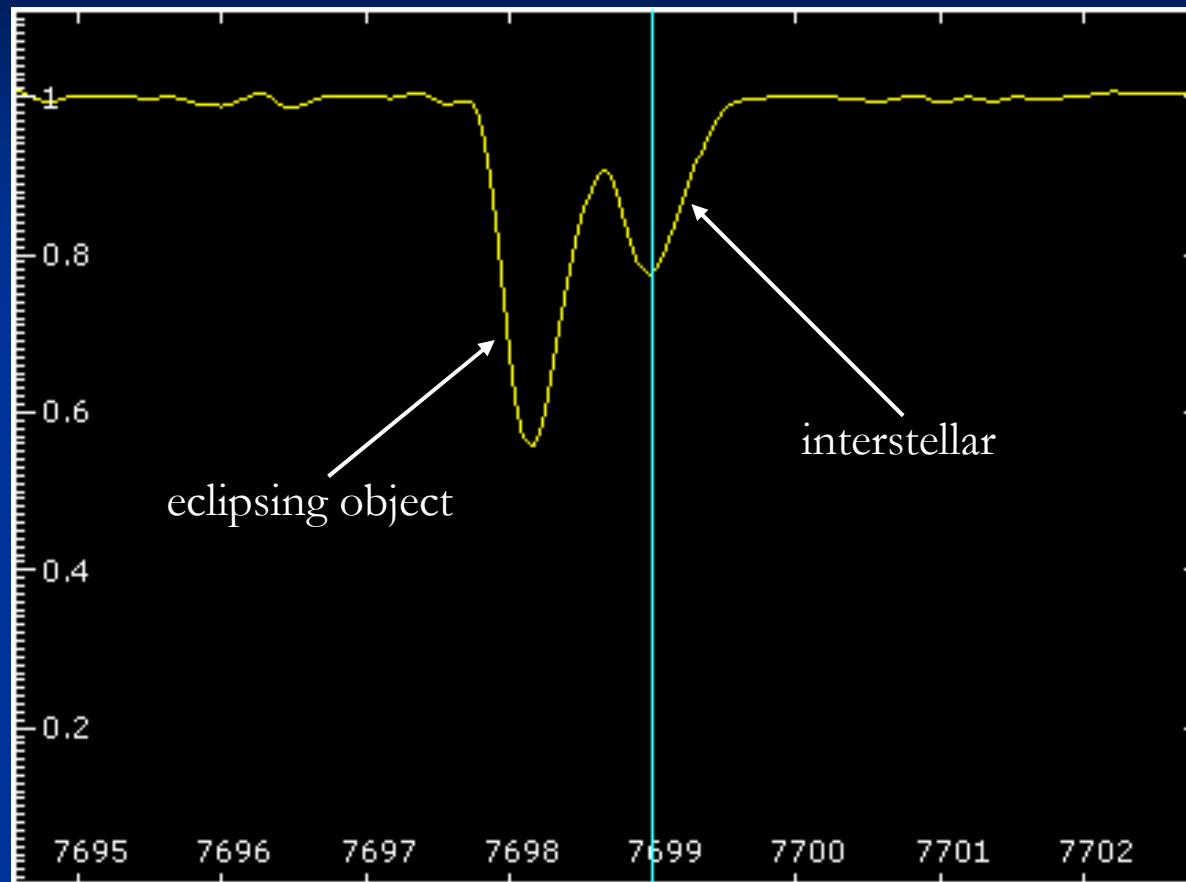




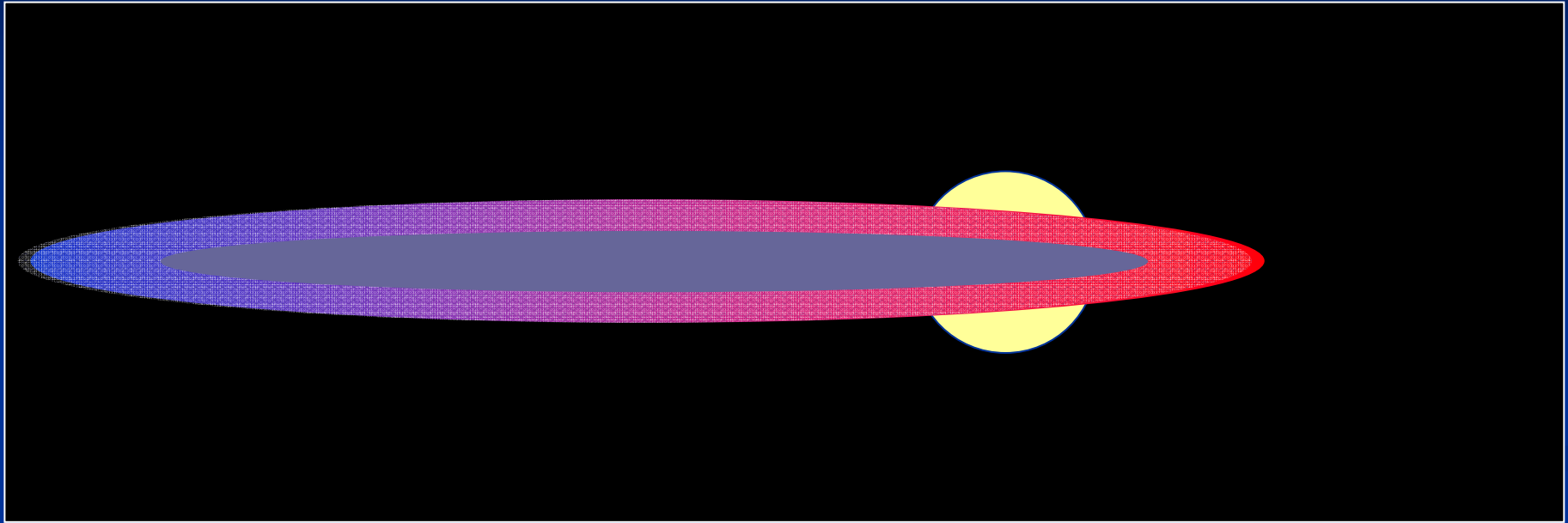
7699A NEUTRAL POTASSIUM LINE LOCATION



7699A NEUTRAL POTASSIUM LINE DETAIL

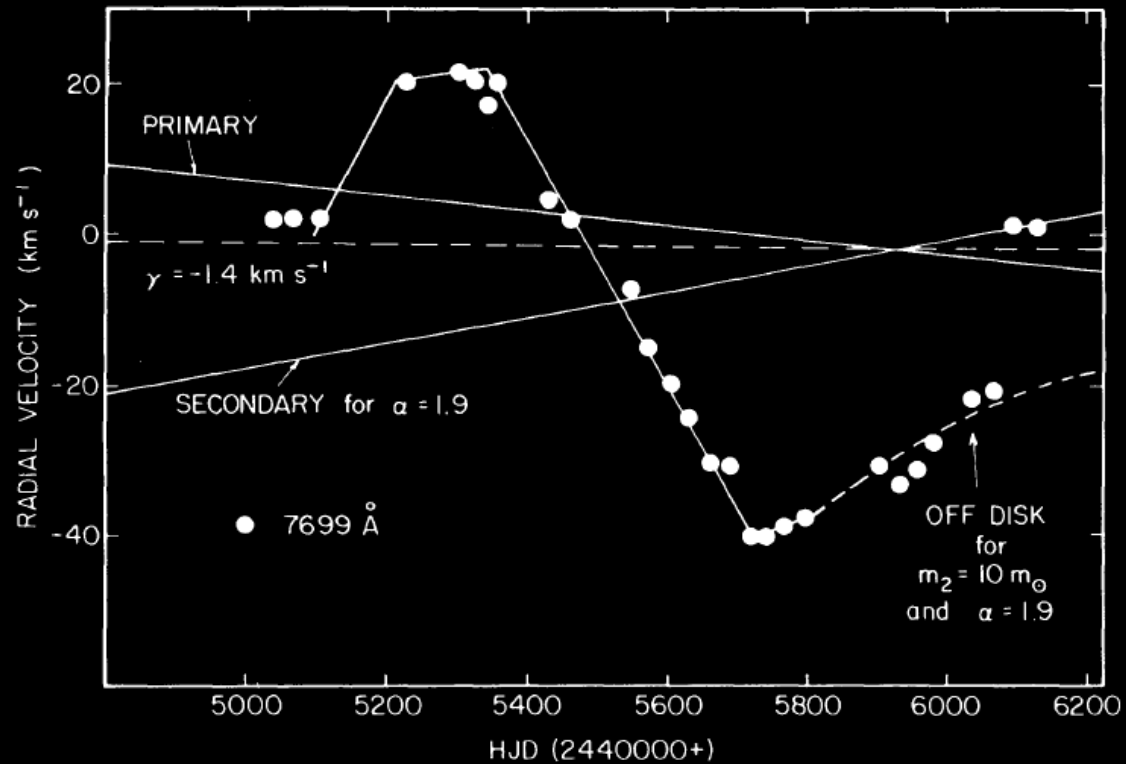


EFFECT OF ECLIPSING DISC ROTATION



RADIAL VELOCITY OF ECLIPSING OBJECT DURING 1982 ECLIPSE

RED



BLUE

FIG. 6—Radial velocities of the K I resonance line at 7699 Å.

Epsilon Aurigae in eclipse. II - Optical absorption lines from the secondary

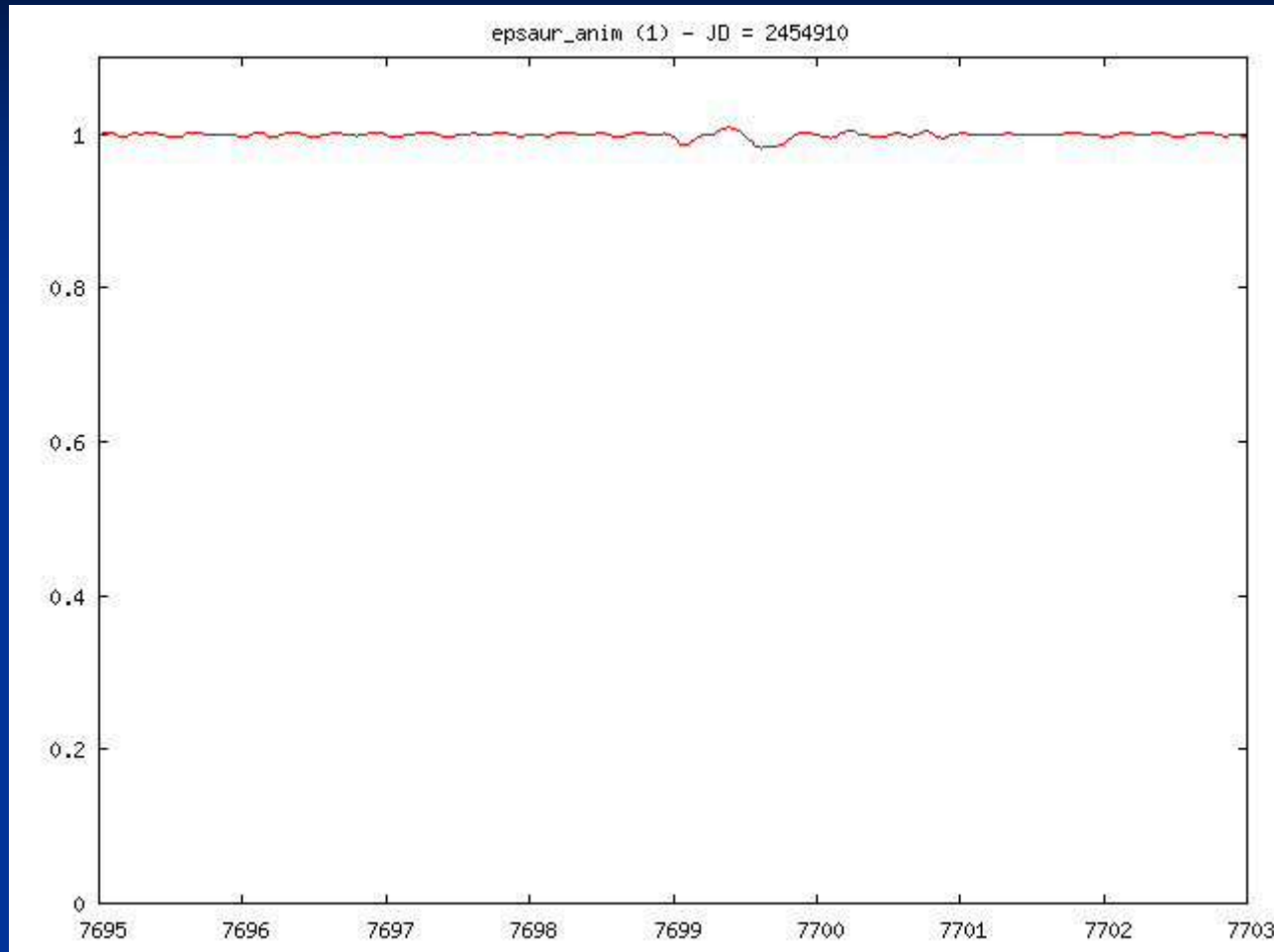
Lambert, D. L.; Sawyer, S. R.

Astronomical Society of the Pacific, Publications vol. 98, April 1986, p. 389-402.

SPECTROGRAPH AT THREE HILLS OBSERVATORY



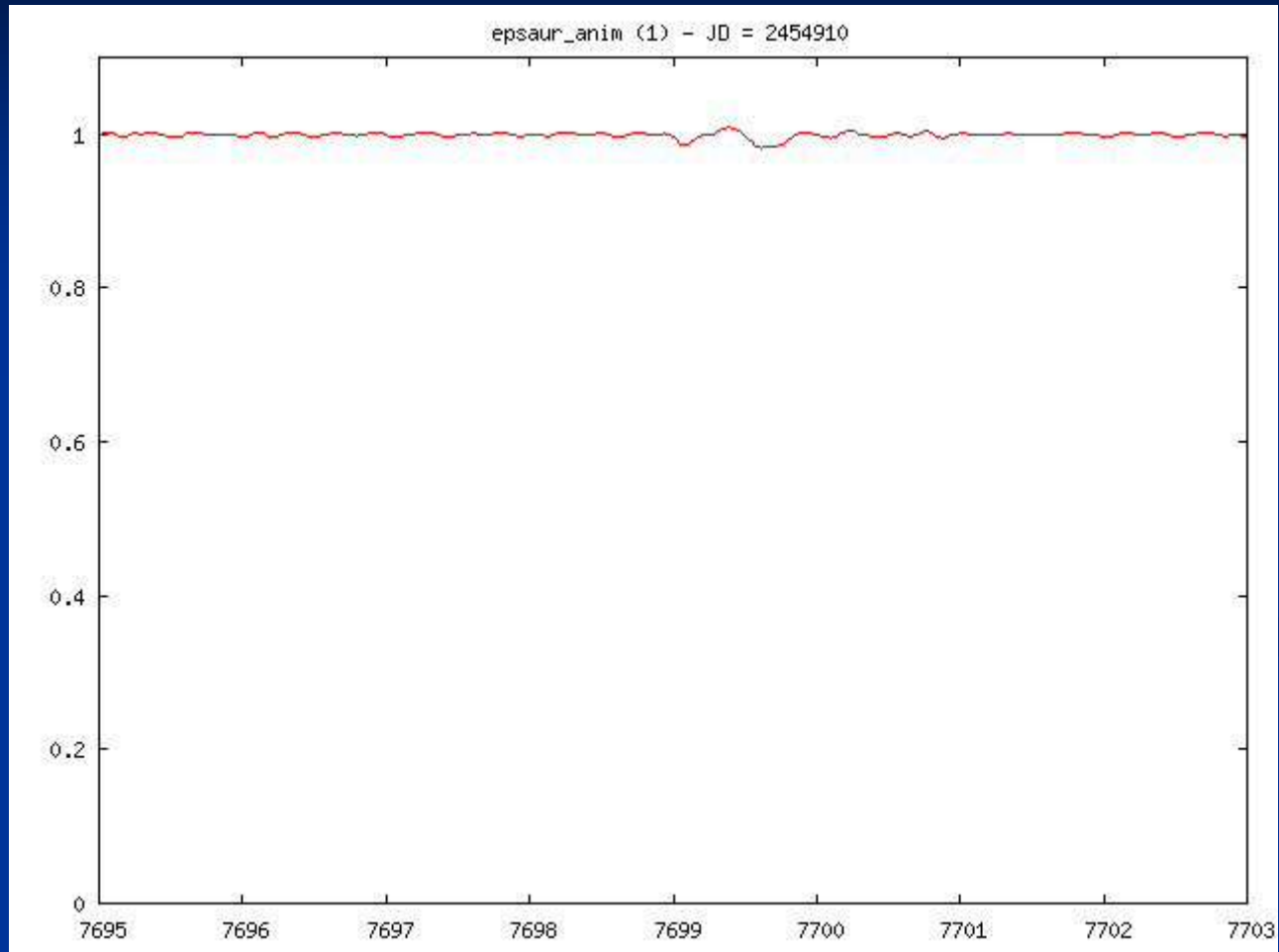
epsilon Aurigae K I 7699A line evolution March 2009 – Oct 2011



Observations

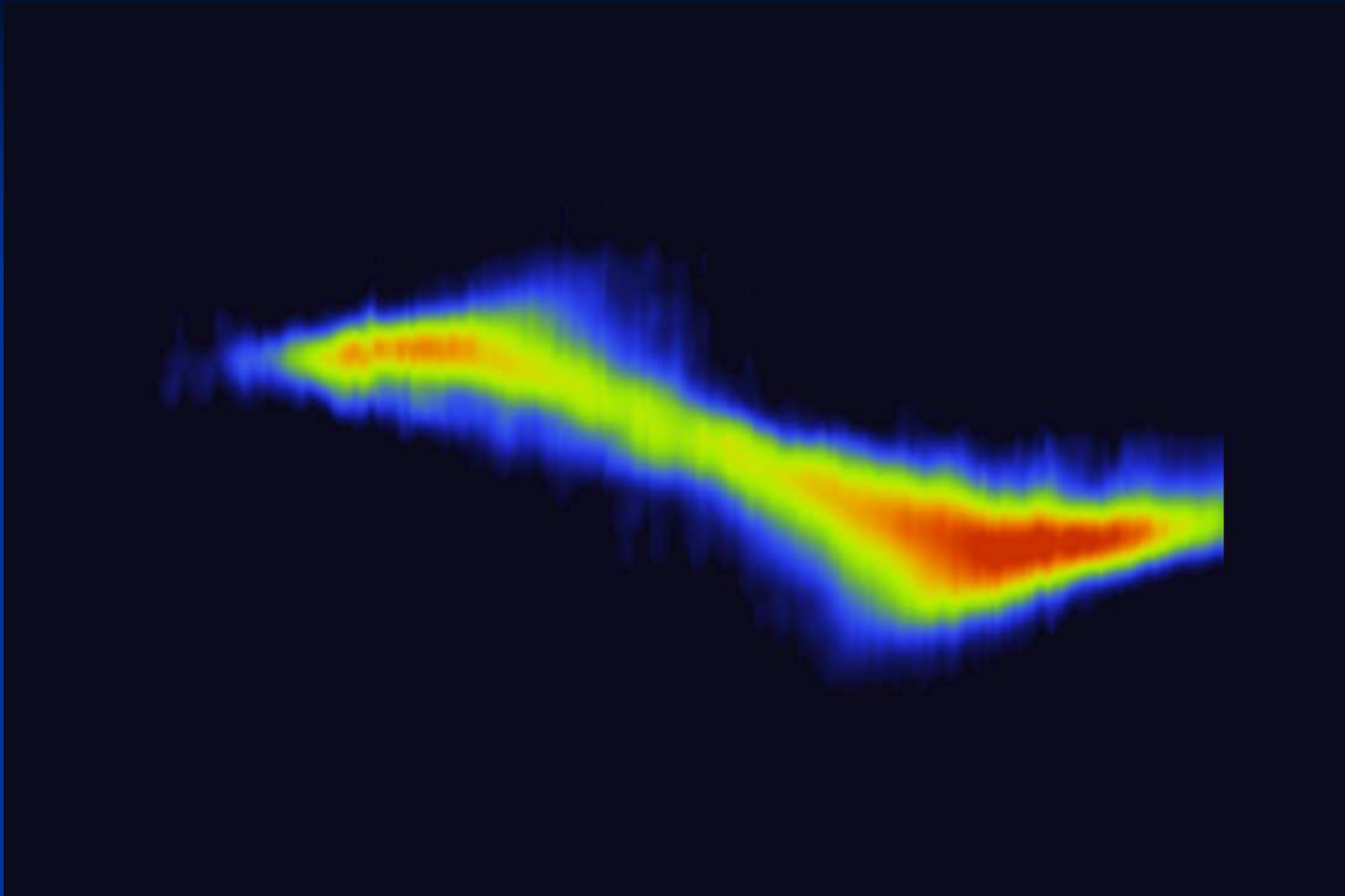
Leadbeater	220
Schanne	15

epsilon Aurigae K I 7699A line evolution March 2009 – Oct 2011

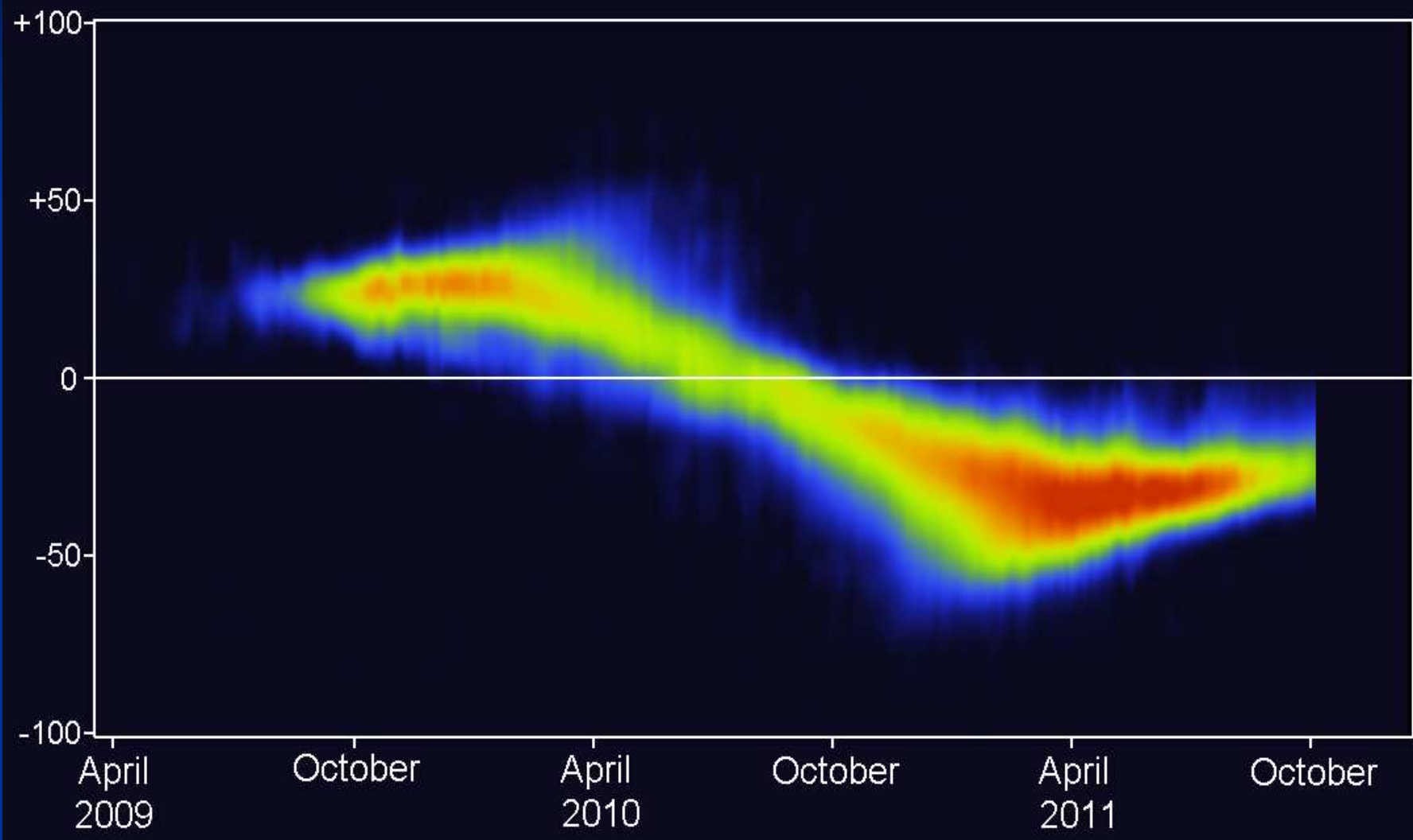


Observations

Leadbeater	220
Schanne	15



RV km/s
(system
reference frame)

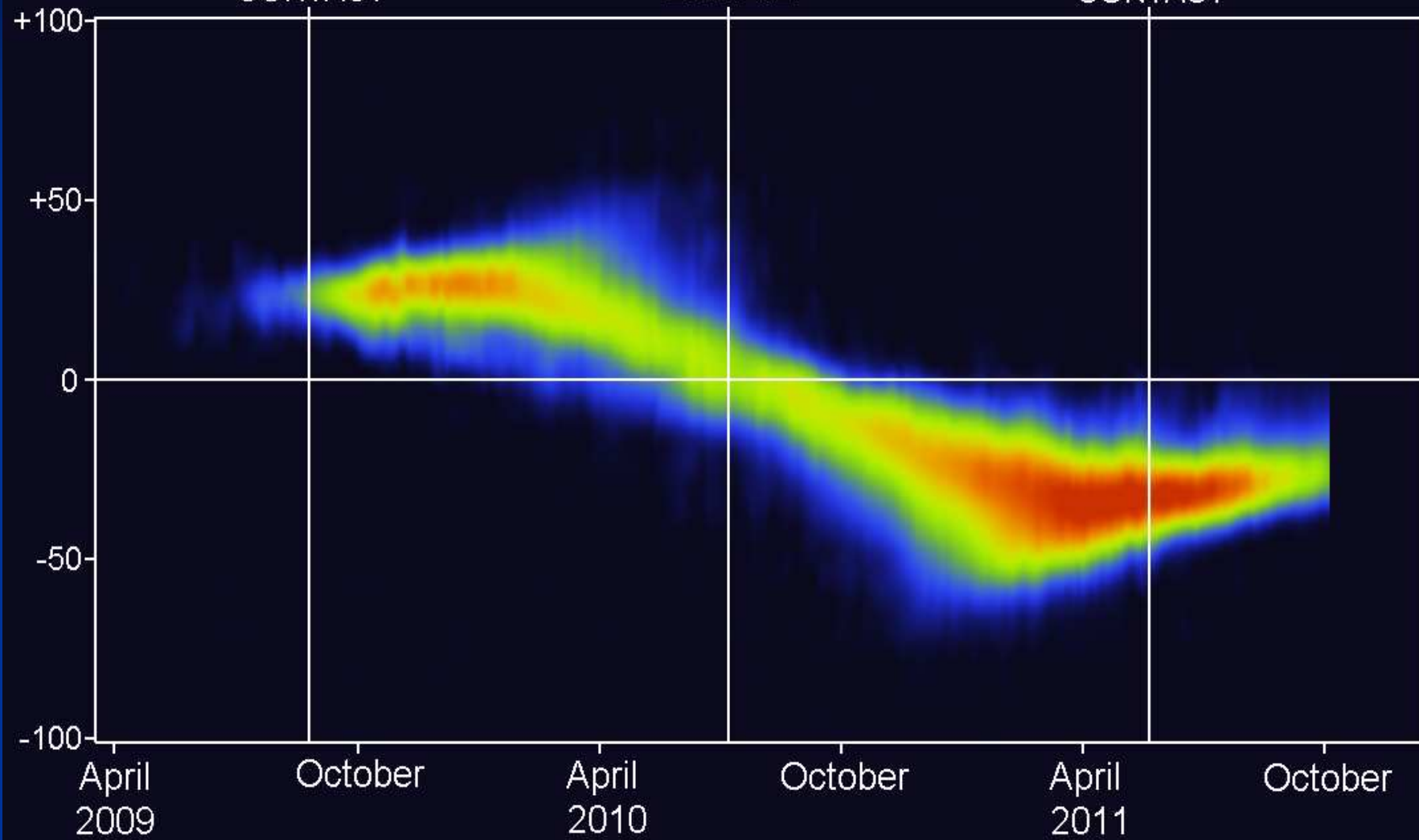


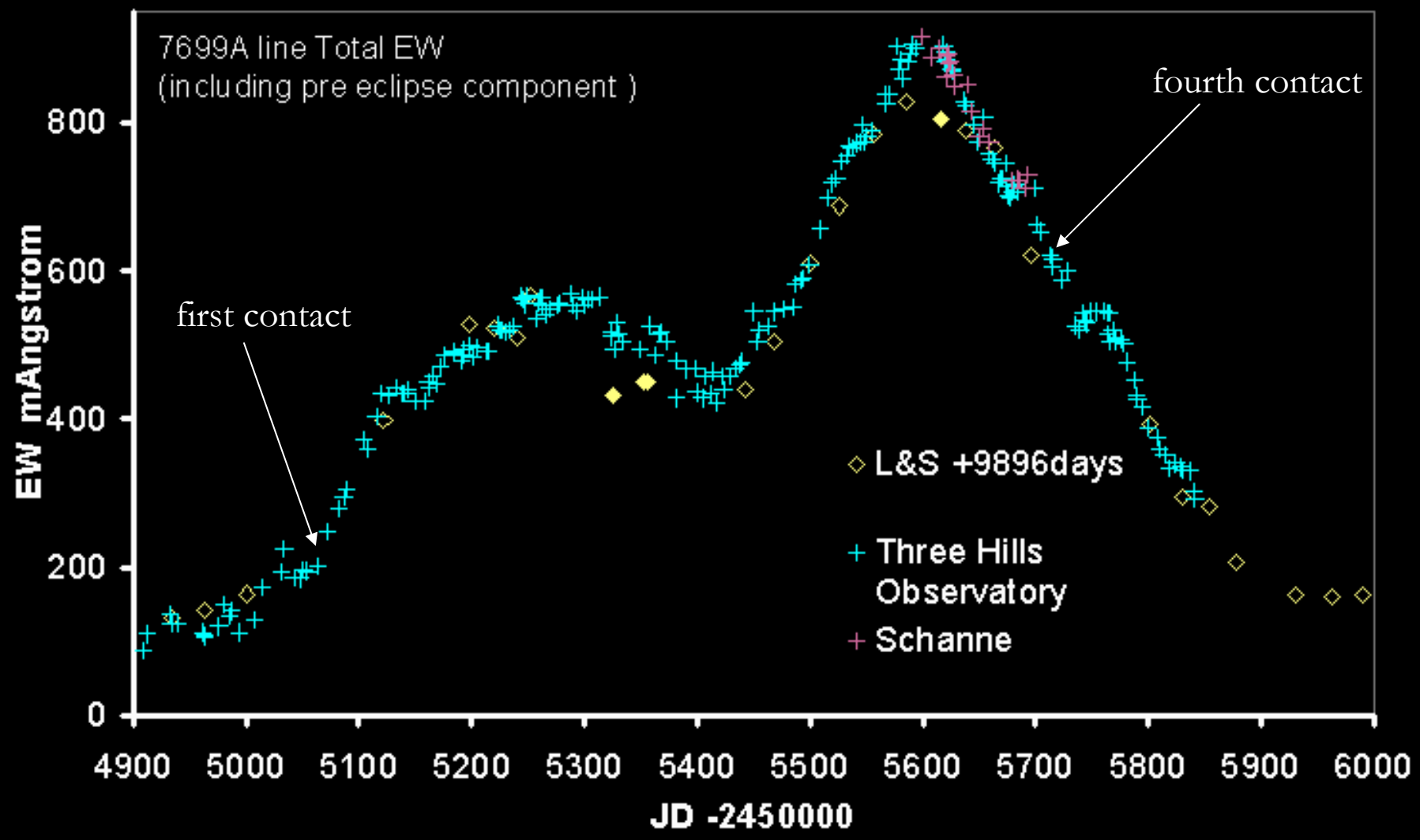
RV km/s
(system
reference frame)

FIRST
CONTACT

MID
ECLIPSE

FOURTH
CONTACT







EPSILON AURIGAE ECLIPSE 2009-2011

TABLE OF SPECTRA TAKEN BY CAMPAIGN MEMBERS

Conditions for use of data in publications

Note there is no validation check prior to adding spectra to this table. Users should verify the quality of the spectra with the observers concerned.

Use of these data in research publications is encouraged subject to the following conditions:

Any publication using these data should include a reference to the International epsilon Aurigae Campaign 2009-11.

The observers concerned should be contacted to confirm the particular acquisition and data reduction procedures used.

Observers contributing a significant amount of data or whose data are pivotal to the findings of the paper should be included as co-authors.

INSTRUCTIONS FOR SUBMITTING DATA

[CLICK TO DOWNLOAD TABLE AS EXCEL FILE](#)

[CLICK FOR WAVELENGTH COVERAGE GRAPH](#)



JD (2400000+)	DATE	TIME (UT)	WAVELENGTH			RESOLUTION (A)	DISPERSION (A/pixel)	S/N	OBSERVER (click for info)	DOWNLOAD	DISPLAY	OBSERVER'S
			START (A)	END (A)	RANGE (A)					FITS/DAT (click Y)	GRAPHIC (click Y)	WEB PAGE (click Y)
55296.418	09-Apr-10	22:02	6500	6750	250				Ribeiro	Y	Y	Y
55295.340	08-Apr-10	20:10	4312	7282	2970		2.14		Teyssier	Y	Y	
55294.367	07-Apr-10	20:34	7674	7723	49	0.3	0.13		Leadbeater			Y
55292.297	05-Apr-10	19:07	6497	6607	110	0.35	0.17		Garrel	Y	Y	
55290.358	03-Apr-10	20:36	7674	7723	49	0.3	0.13		Leadbeater			Y
55288.356	01-Apr-10	20:33	7674	7723	49	0.3	0.13		Leadbeater			Y
55288.289	01-Apr-10	18:56	6497	6607	110	0.35	0.17		Garrel	Y	Y	
55282.319	26-Mar-10	19:39	6497	6607	110	0.35	0.17		Garrel	Y	Y	
55278.384	22-Mar-10	21:13	7674	7723	49	0.3	0.13		Leadbeater			Y
55276.343	20-Mar-10	20:14	7674	7723	49	0.3	0.13		Leadbeater			Y
55273.277	17-Mar-10	18:39	4279	7113	2834		0.1		Buil	Y		Y
55272.295	16-Mar-10	19:05	4301	7265	2964		2.14		Teyssier	Y	Y	
55271.399	15-Mar-10	21:35	6520	6680	160		0.11	242	Mauclair	Y	Y	Y
55271.282	15-Mar-10	18:46	4279	7113	2834		0.1		Buil	Y		Y
55269.389	13-Mar-10	21:20	6520	6680	160		0.11	214	Mauclair	Y	Y	Y
55269.374	13-Mar-10	20:59	7674	7723	49	0.3	0.13		Leadbeater			Y
55269.277	13-Mar-10	18:39	4279	7113	2834		0.1		Buil	Y		Y

June 2036
Put it in your diary !

