

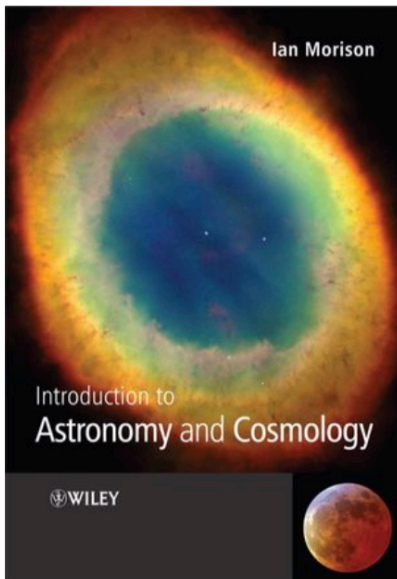


# Structure and Evolution of Stars

## Lecture 1

# WILEY

To purchase this product, please visit <https://www.wiley.com/en-gb/9781118681527>



## Introduction to Astronomy and Cosmology

Ian Morison

E-Book	978-1-118-68152-7	March 2013	<b>£37.99</b>
Paperback	978-0-470-03334-0	October 2008	<b>£43.95</b>

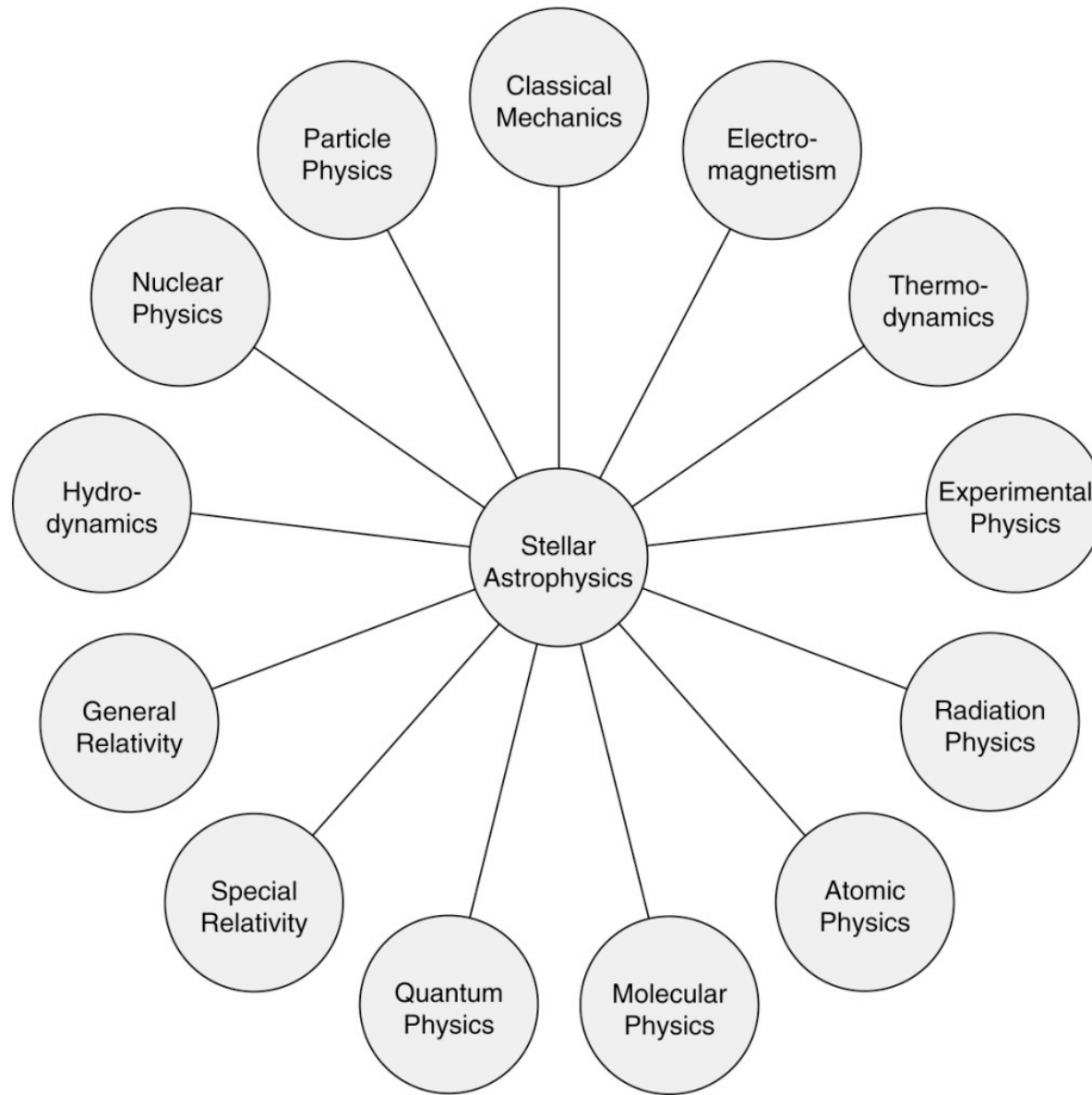
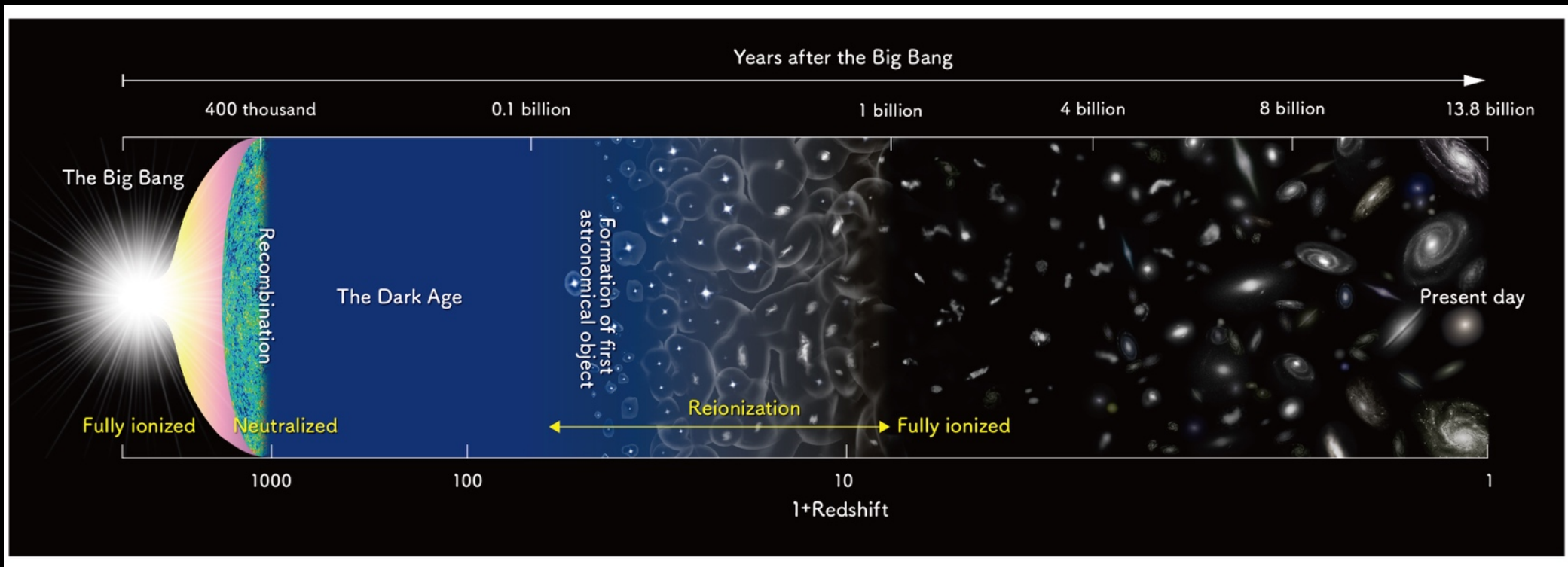
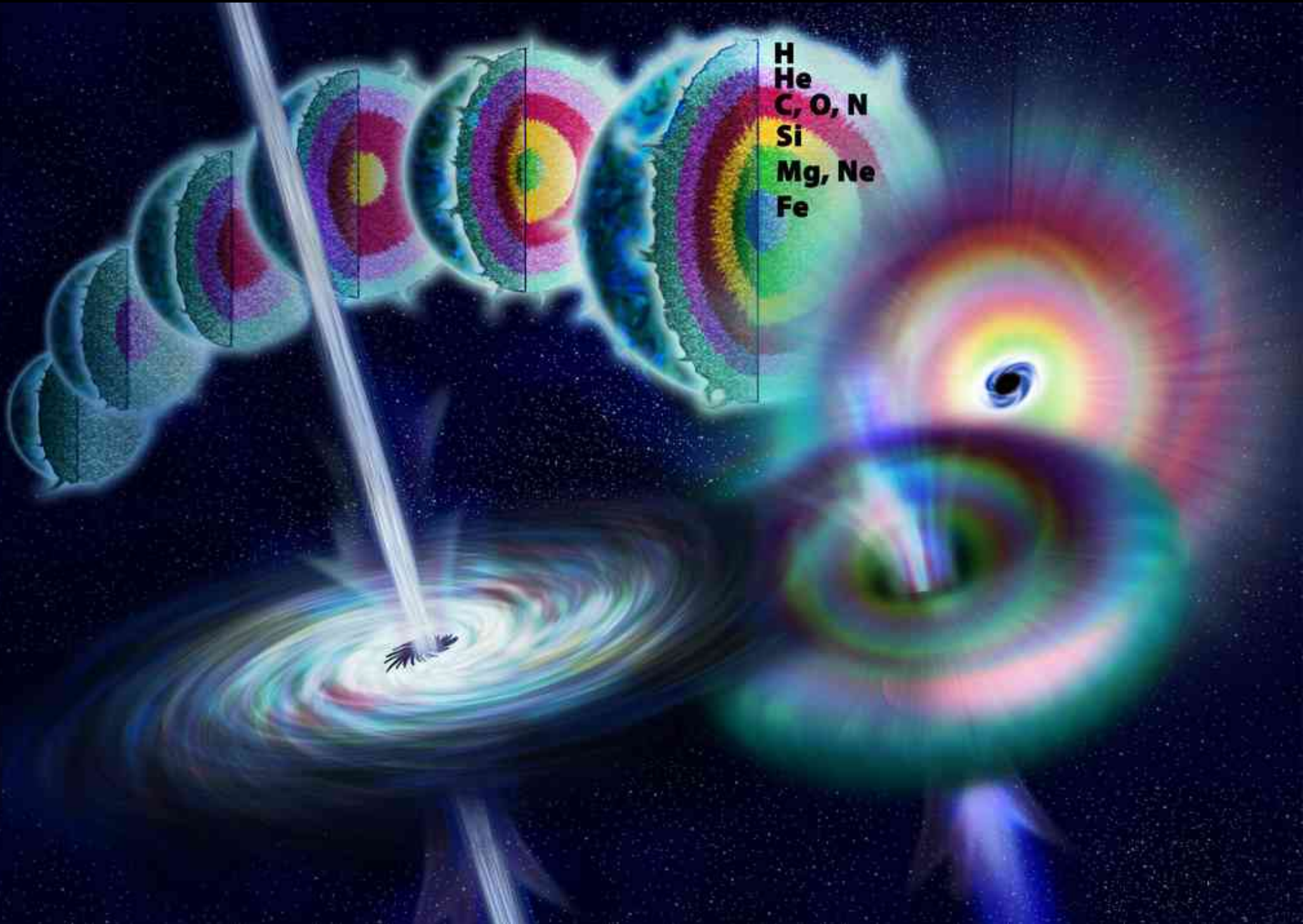


Figure illustrating the various fields of physics that intervene in stars.

LeBlanc: Stellar Astrophysics, Wiley





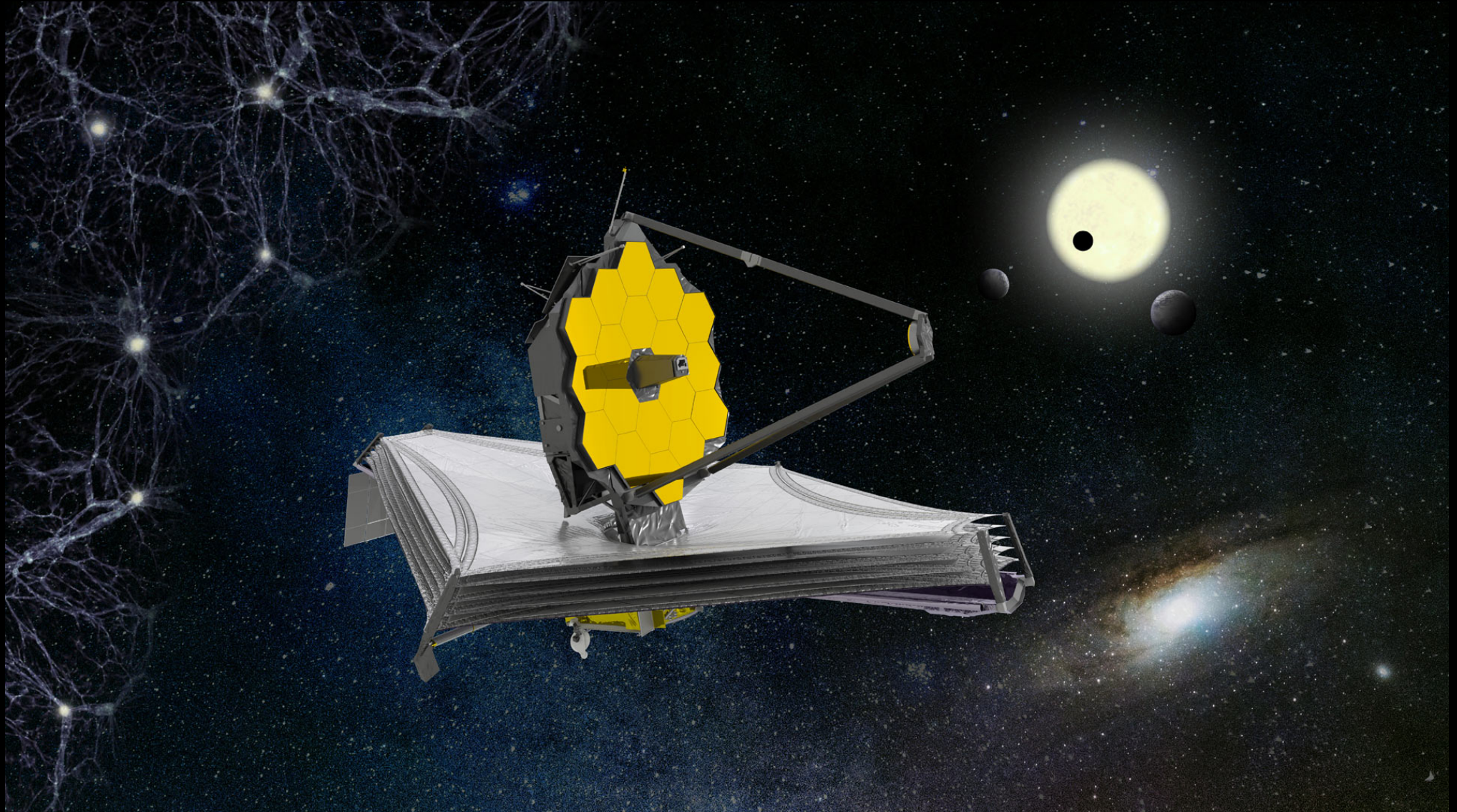




Mike Sherick 2022





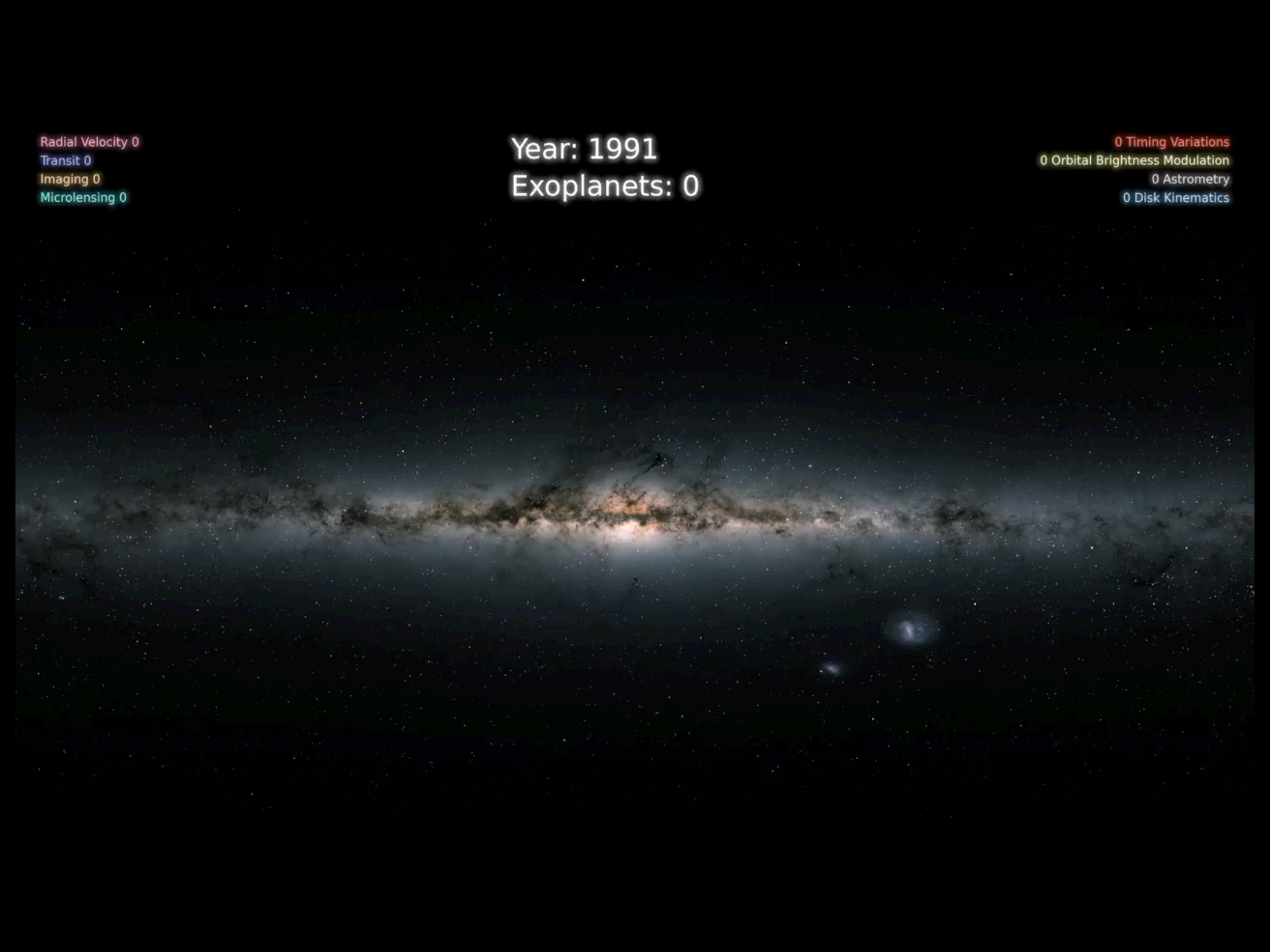




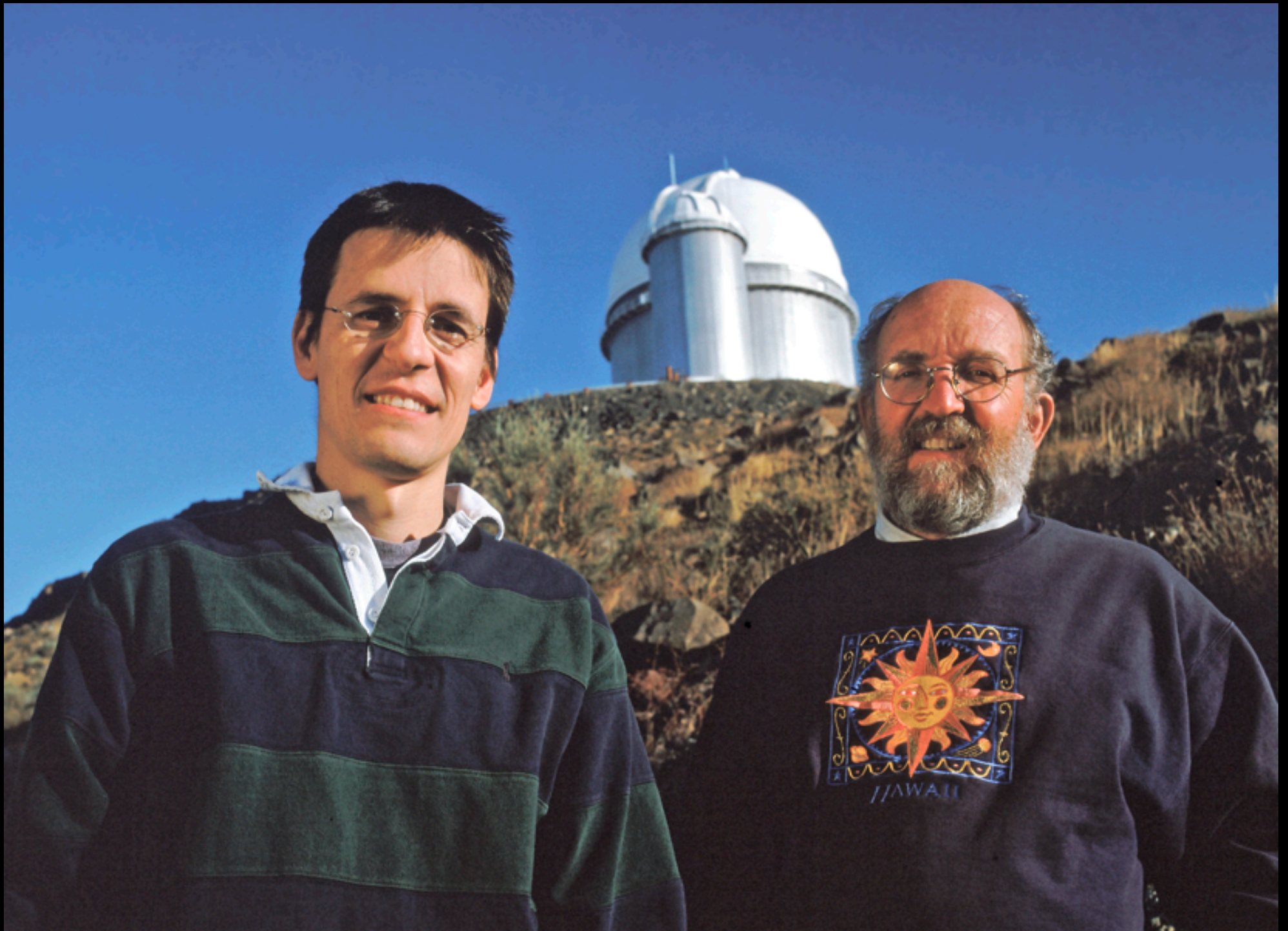
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Transit 0  
Imaging 0  
Microlensing 0

Year: 1991  
Exoplanets: 0

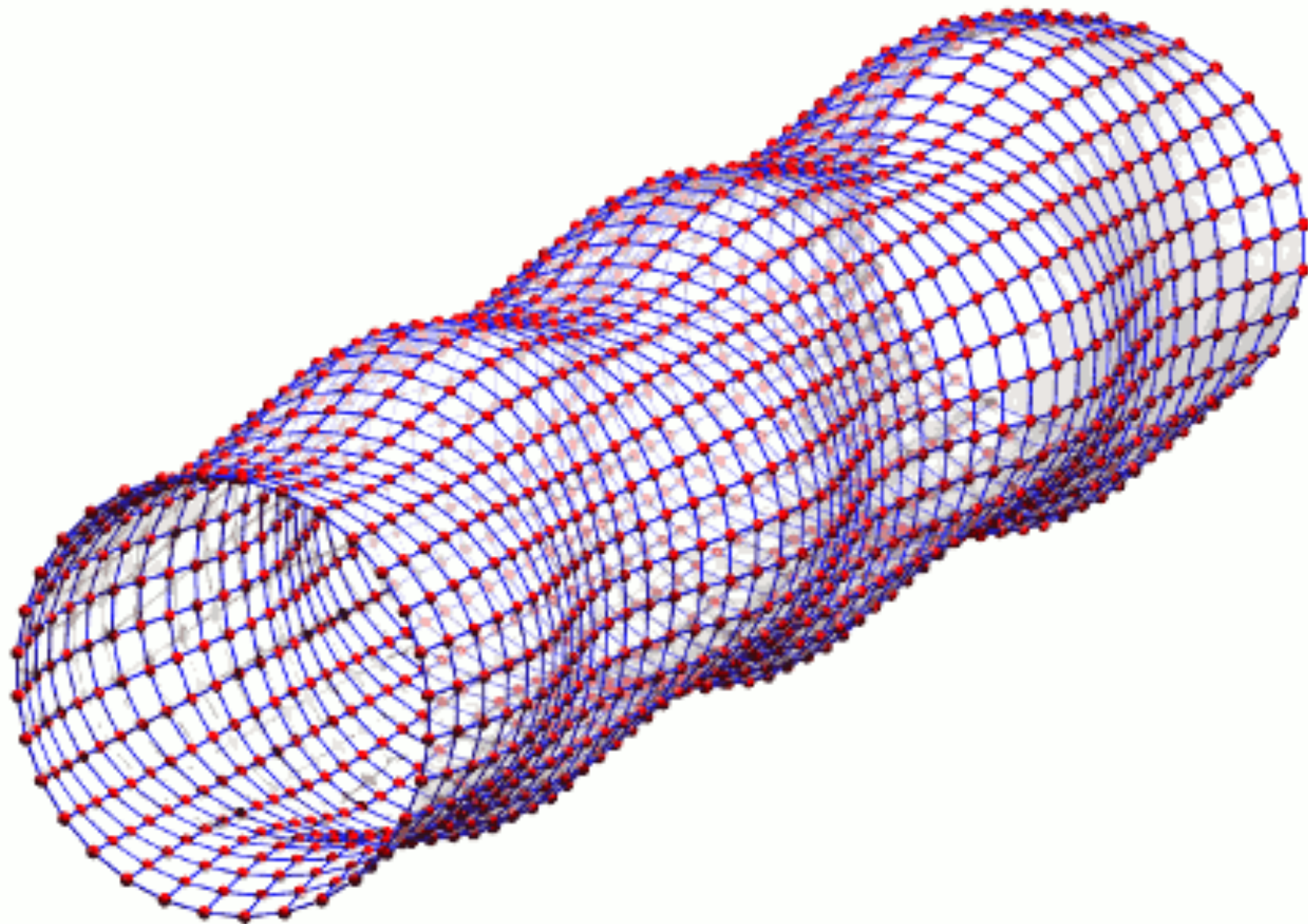
0 Timing Variations  
0 Orbital Brightness Modulation  
0 Astrometry  
0 Disk Kinematics



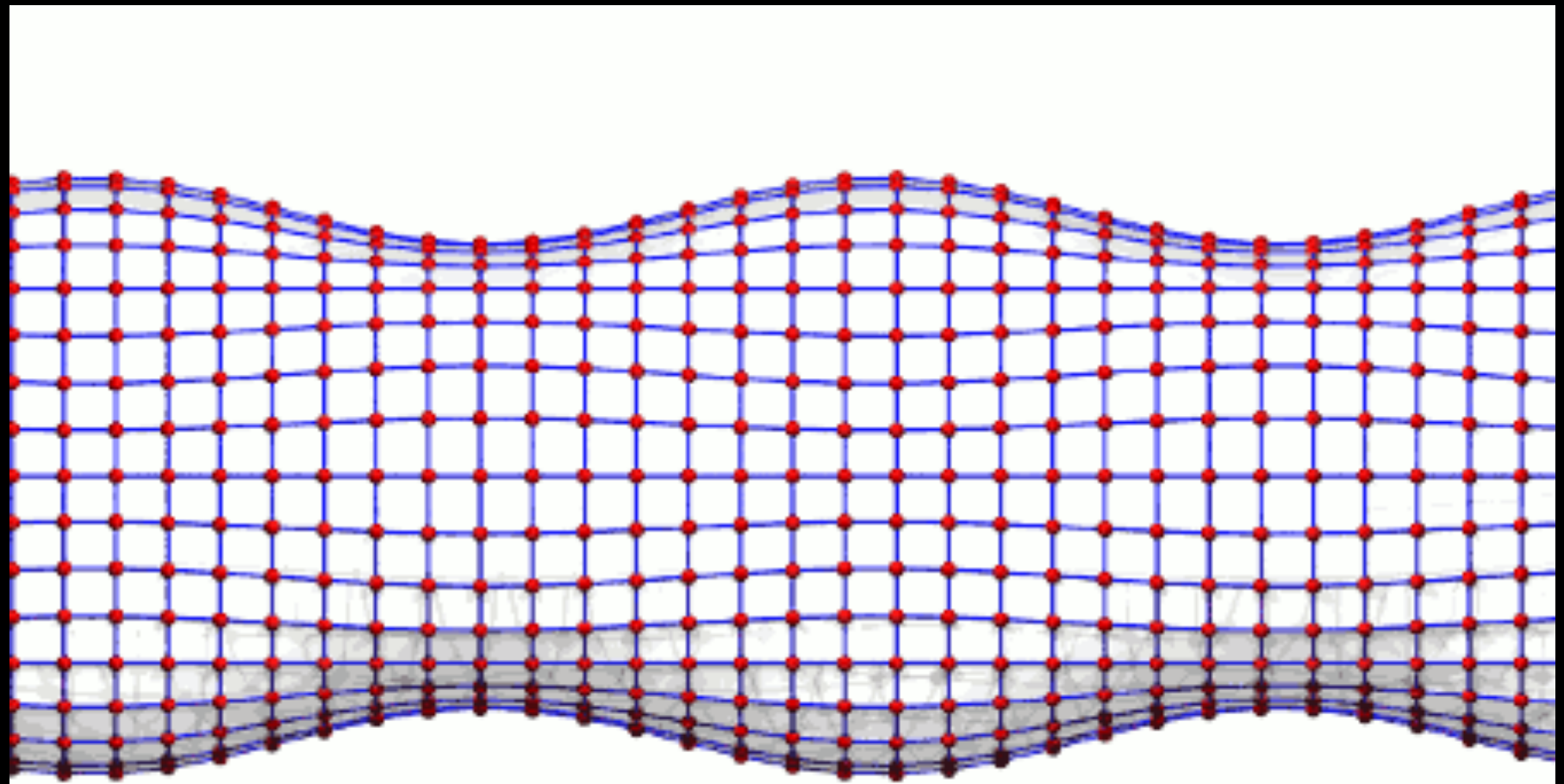








[www.einstein-online.info](http://www.einstein-online.info)

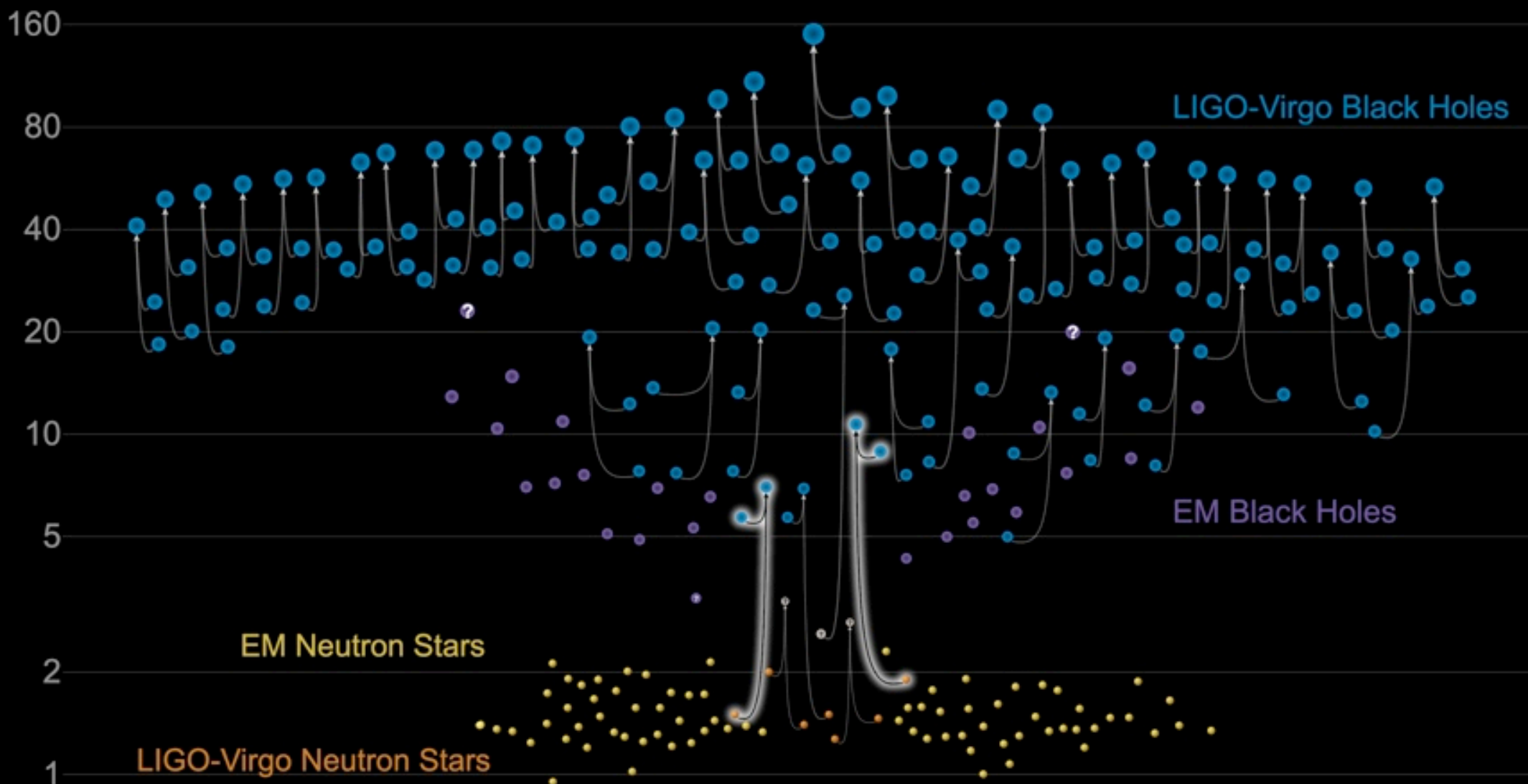


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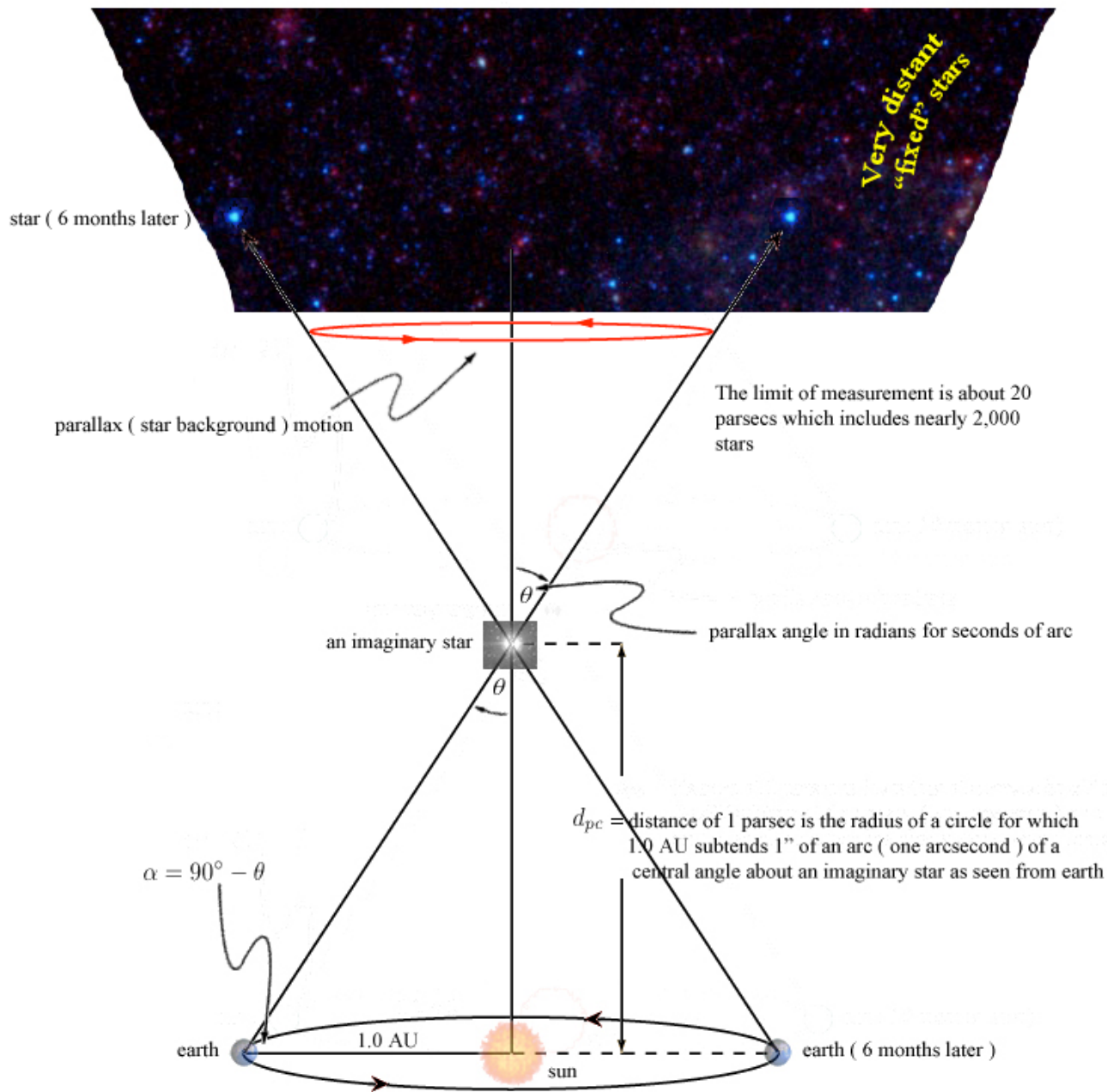
# Masses in the Stellar Graveyard

*in Solar Masses*



GWTC-2 plot v1.0

LIGO-Virgo | Frank Elavsky, Aaron Geller | Northwestern



Where:

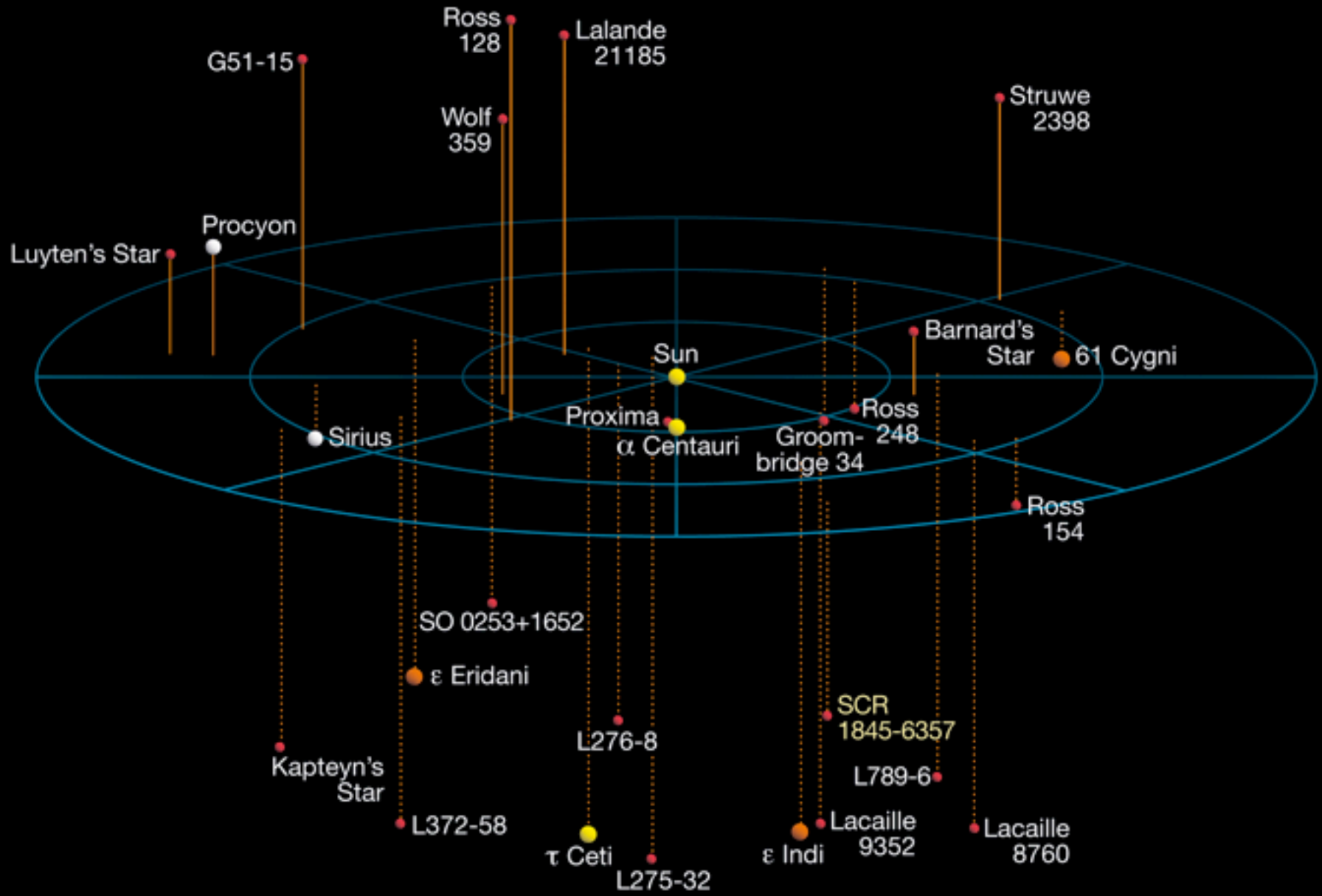
$\theta$  = angle of parallax in radians for seconds of arc

$d_{pc} = 1/\theta$ , distance to an imaginary star in parsecs and is the radius of a circle for which

1.0 AU subtends 1.0" ( one second ) of arc of a central angle about an imaginary star as seen from earth

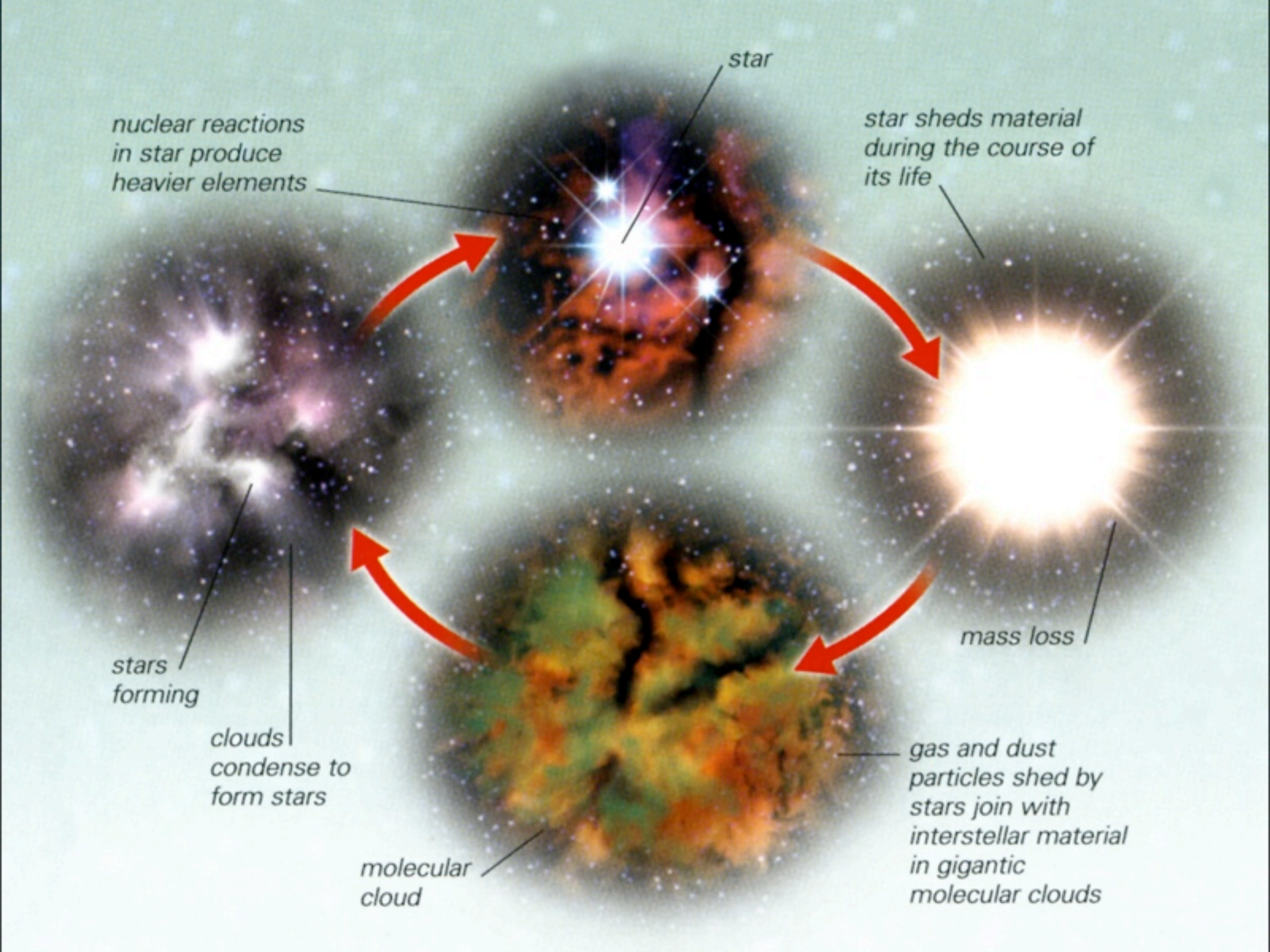
note: the word parsec stands for "Parallax of one arcsecond"

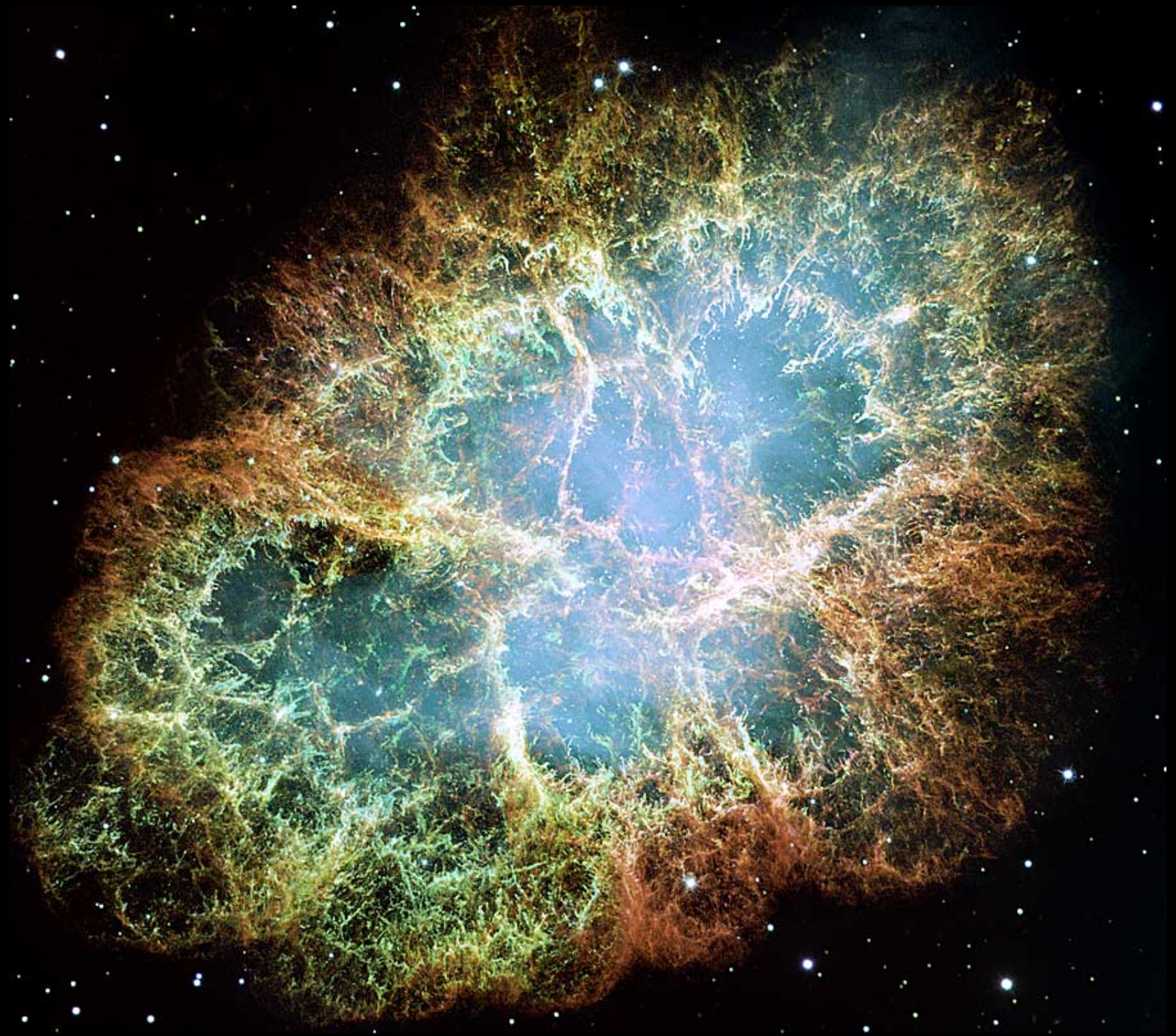
10 Lightyears







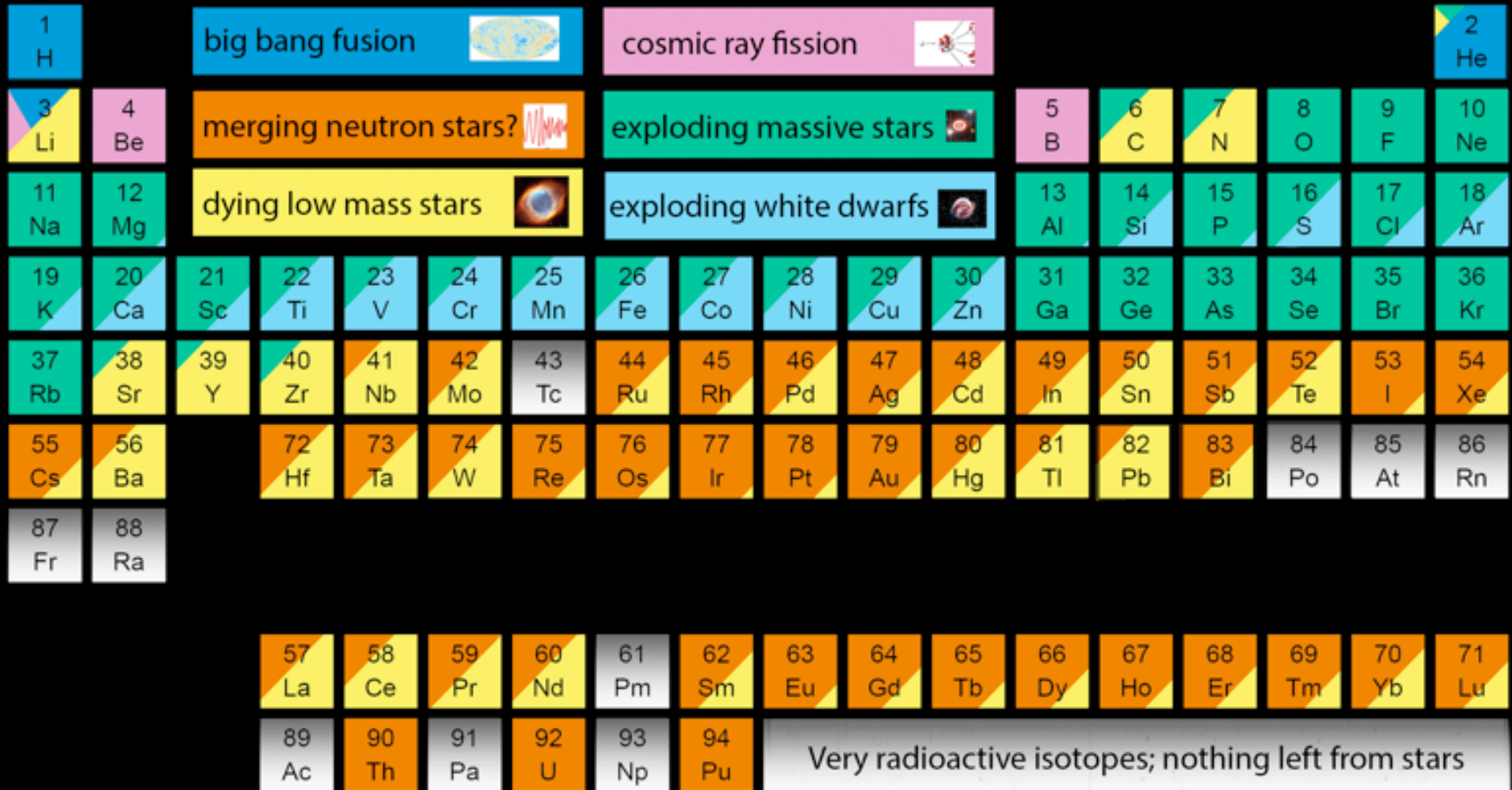








# The Origin of the Solar System Elements



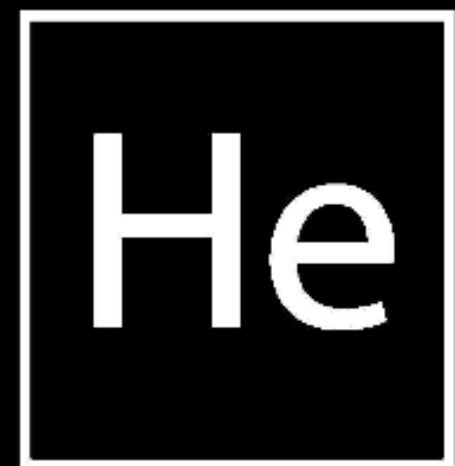
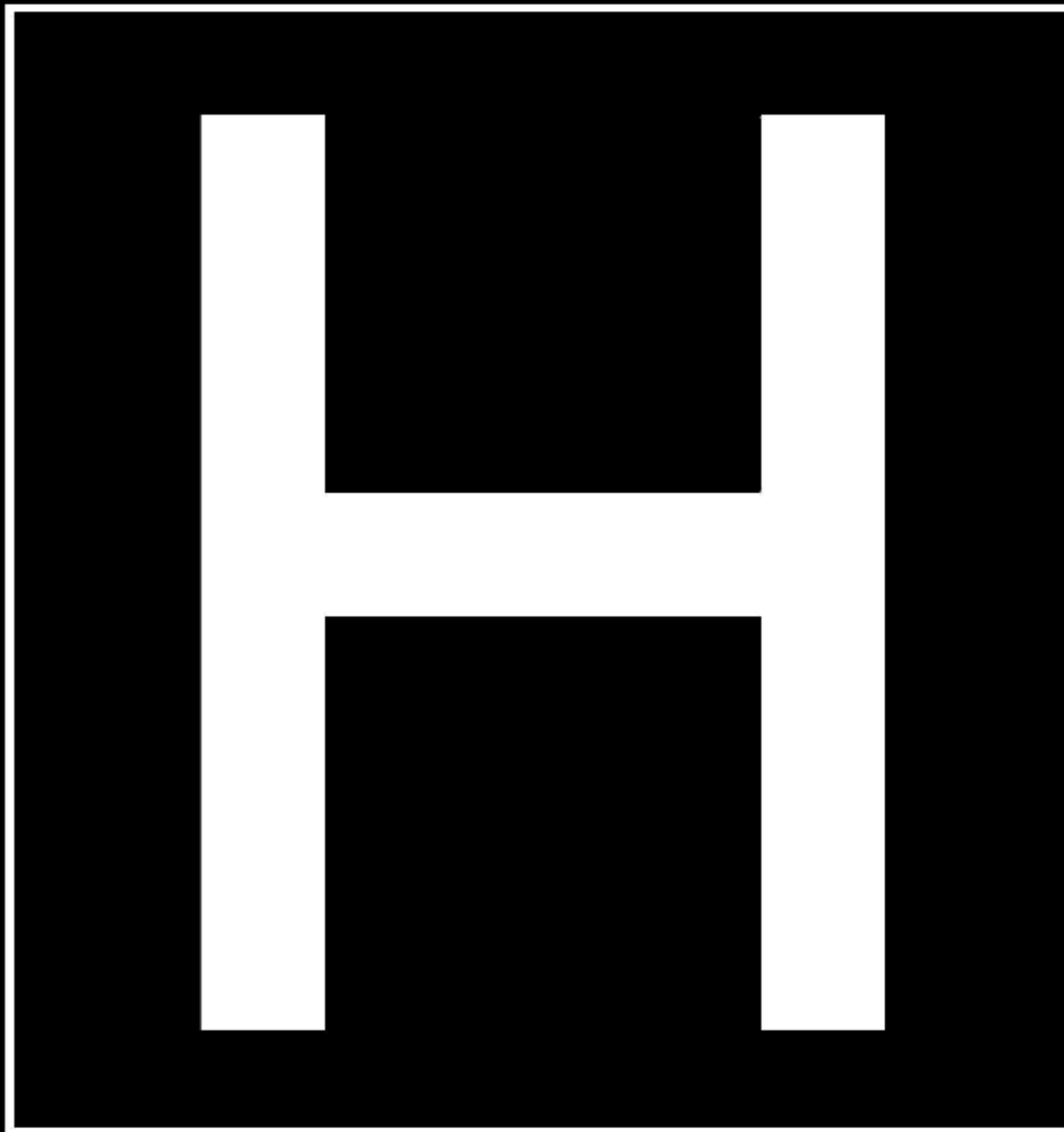
Graphic created by Jennifer Johnson  
<http://www.astronomy.ohio-state.edu/~jaj/nucleo/>

Astronomical Image Credits:  
 ESA/NASA/AASNova





# The Astronomer's Periodic Table of the Elements



Li	Be	B	C	N	O	F	Ne
			□	□	□		□
Na	Mg	Al	Si	P	S	Cl	Ar
			□	□	□	□	□
K	Ca	Sc	Ti	V	Cr	Mn	Fe
			Co	Ni	Cu	Zn	

Area  $\propto$   
Cosmic Abundance

