

# Types of Stars

## Part 2

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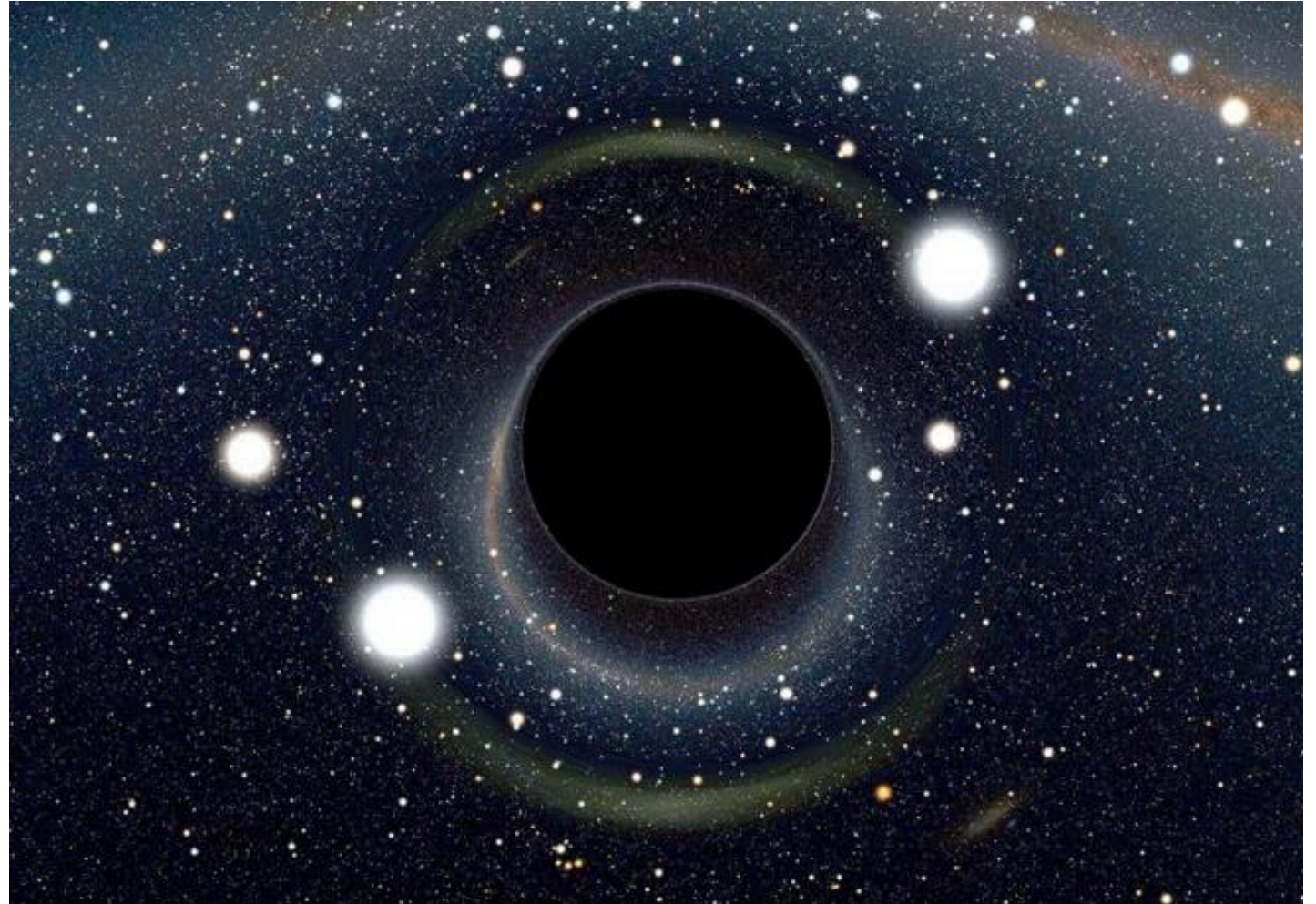
# Double Star

Consists of 2 stars that rotate their common center of mass.



# Black Hole

They have very high density and even light can't escape. Their mass can be equal 1 billion of solar masses and at the same time it's radius will be few kilometers.





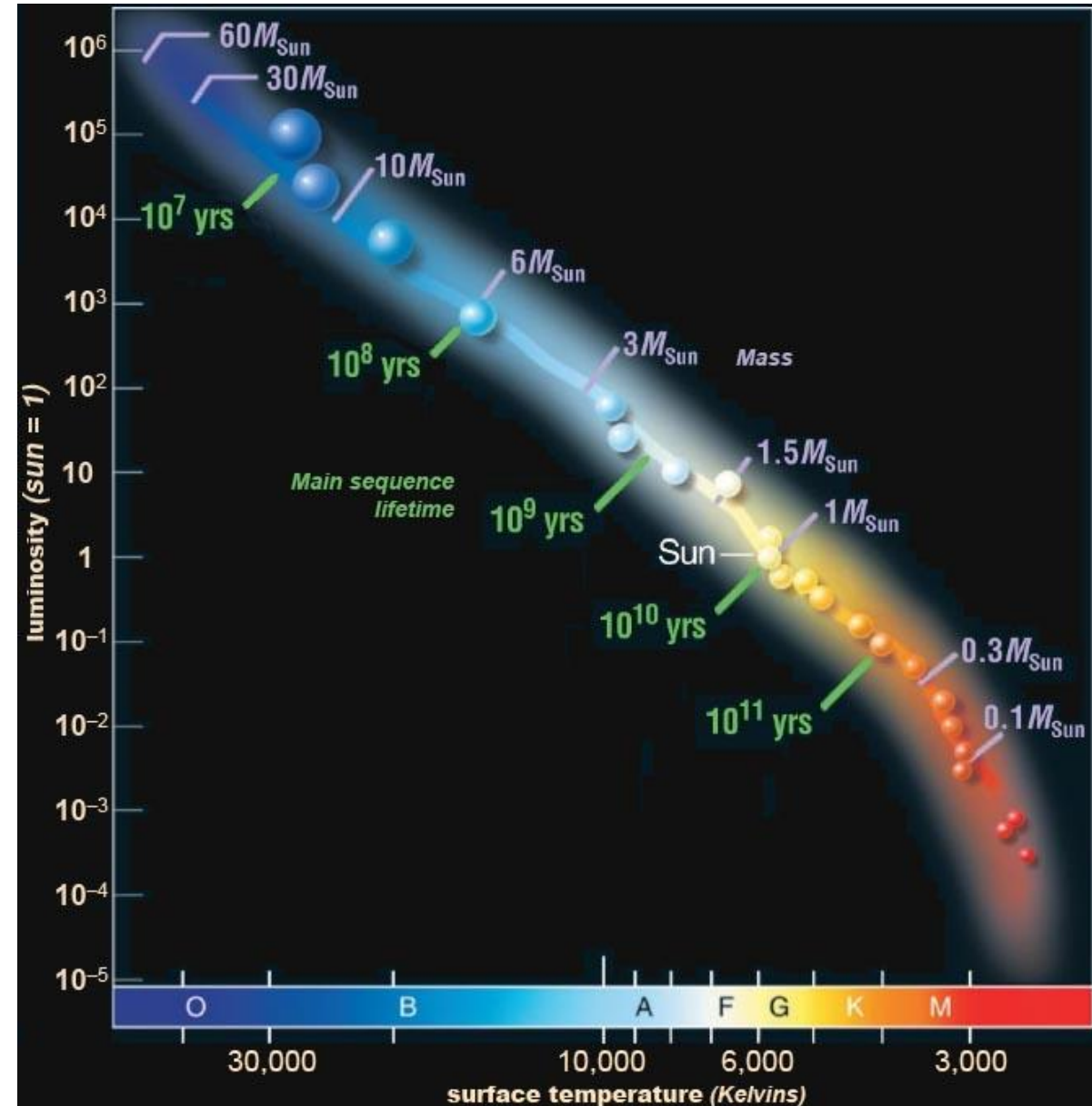
# Quasar

Consists of a supermassive black hole surrounded by an orbiting accretion disk of gas. It is the most powerful objects in the Universe.



# Spectral Classification of Stars

Most stars are currently classified under the Morgan–Keenan (MK) system using the letters *O*, *B*, *A*, *F*, *G*, *K*, and *M*, a sequence from the hottest (*O* type) to the coolest (*M* type). Each letter class is then subdivided using a numeric digit with *O* being hottest and 9 being coolest (e.g. A8, A9, F0, F1 form a sequence from hotter to cooler).



# Spectral Classification of Stars

Class	Effective temperature <sup>[1]</sup> <sup>[2][3]</sup>	Vega-relative "color label" <sup>[4][nb 1]</sup>	Chromaticity <sup>[5]</sup> <sup>[6][7][nb 2]</sup>	Main-sequence mass <sup>[1][8]</sup> (solar masses)	Main-sequence radius <sup>[1][8]</sup> (solar radii)
O	$\geq 30,000$ K	blue	blue	$\geq 16 M_{\odot}$	$\geq 6.6 R_{\odot}$
B	10,000–30,000 K	blue white	deep blue white	$2.1\text{--}16 M_{\odot}$	$1.8\text{--}6.6 R_{\odot}$
A	7,500–10,000 K	white	blue white	$1.4\text{--}2.1 M_{\odot}$	$1.4\text{--}1.8 R_{\odot}$
F	6,000–7,500 K	yellow white	white	$1.04\text{--}1.4 M_{\odot}$	$1.15\text{--}1.4 R_{\odot}$
G	5,200–6,000 K	yellow	yellowish white	$0.8\text{--}1.04 M_{\odot}$	$0.96\text{--}1.15 R_{\odot}$
K	3,700–5,200 K	orange	pale yellow orange	$0.45\text{--}0.8 M_{\odot}$	$0.7\text{--}0.96 R_{\odot}$
M	2,400–3,700 K	red	light orange red	$0.08\text{--}0.45 M_{\odot}$	$\leq 0.7 R_{\odot}$