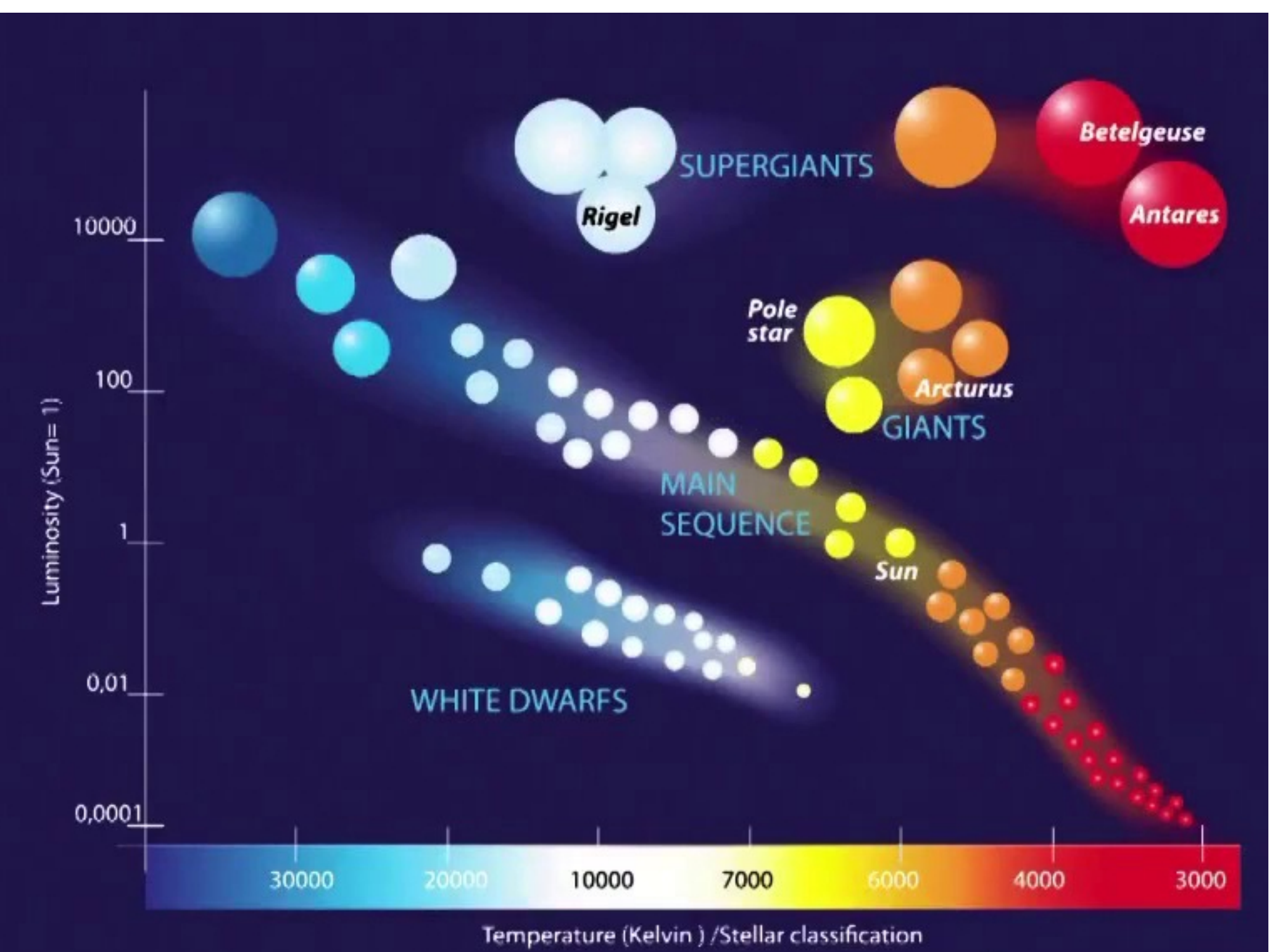
How big are stars?

...a tale of Super Giant Stars and Shells

Dory Szécsi

University of Birmingham

Girls in STEM day
12th September 2018


SUPERGIANTS
Rigel
Betelgeuse
Antares
Pole star
Arcturus
GIANTS
MAIN SEQUENCE
Sun
WHITE DWARFS
10000
100
1
0,01
0,0001
Luminosity (Sun= 1)
30000
20000
10000
7000
6000
4000
3000
Temperature (Kelvin) /Stellar classification

A “globular” star-cluster = a globular cluster

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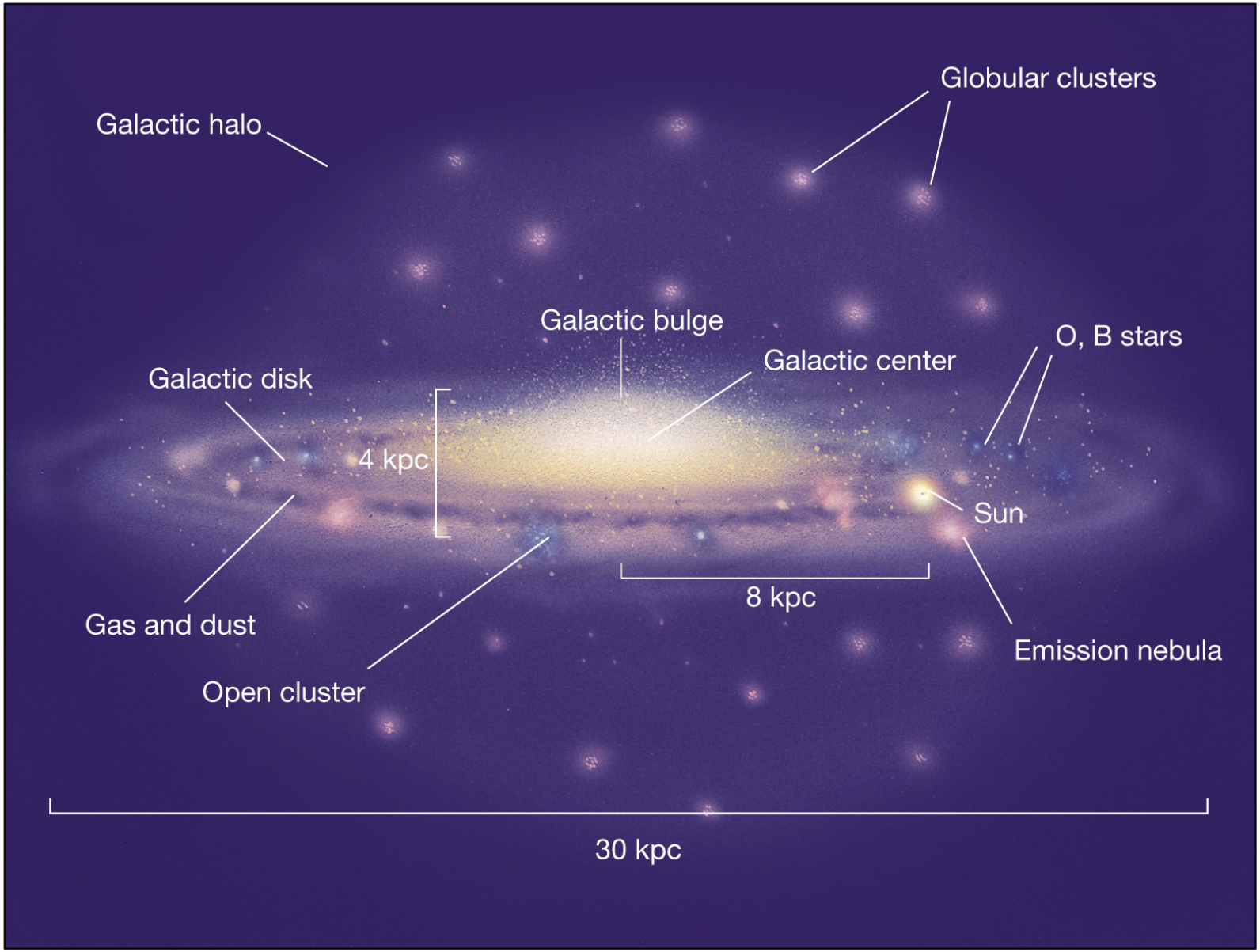

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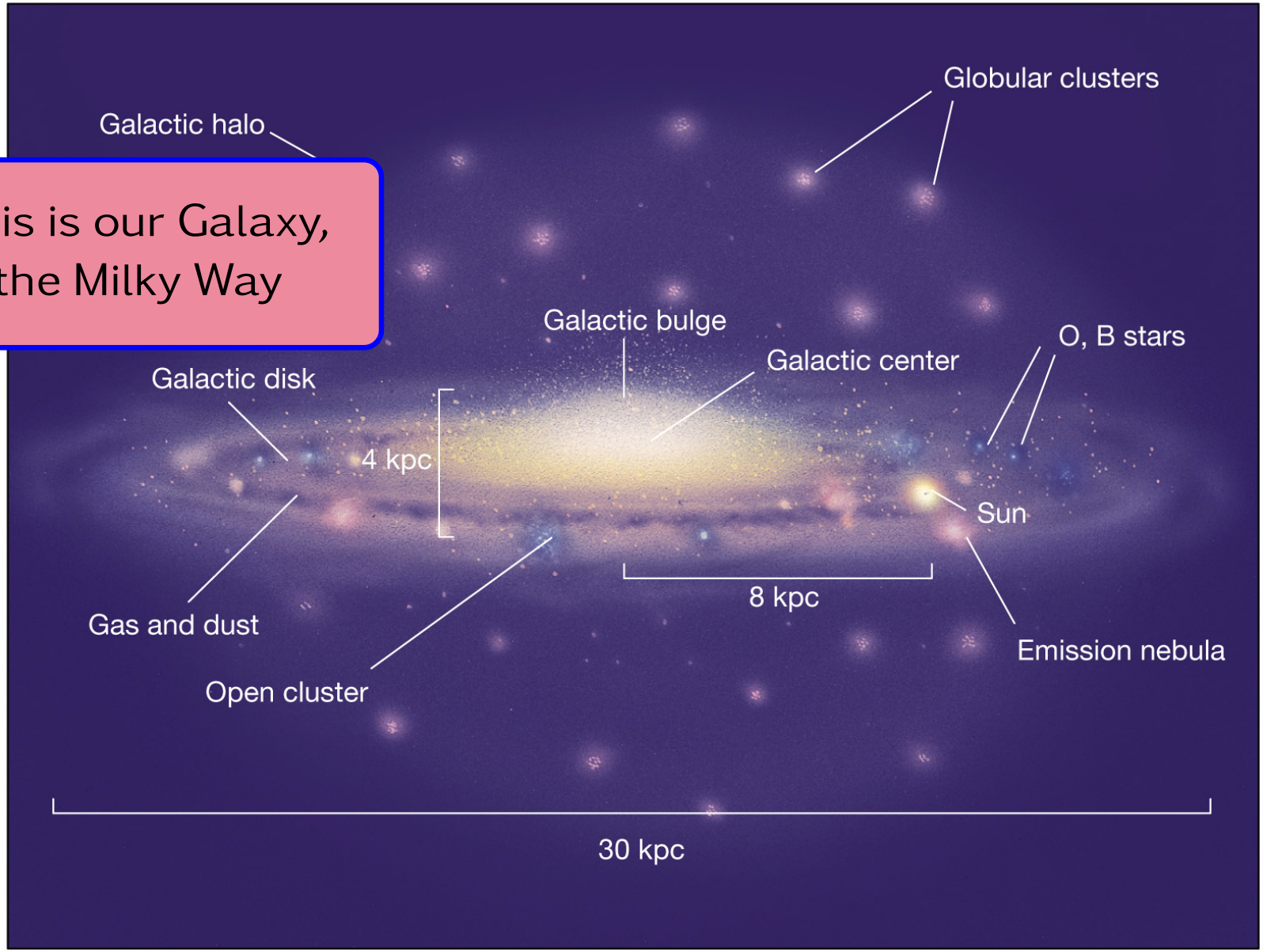
This is our Galaxy, the Milky Way



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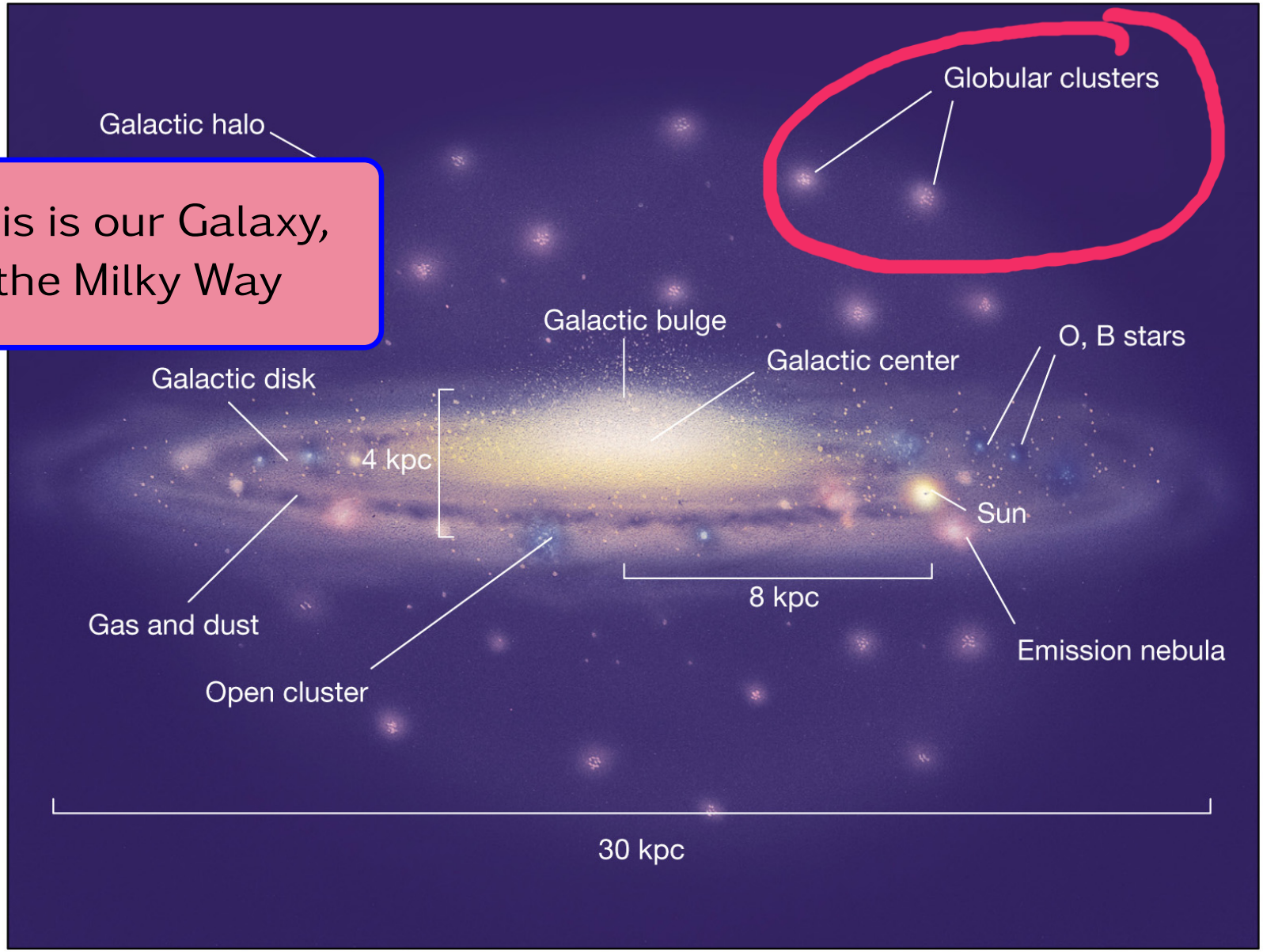

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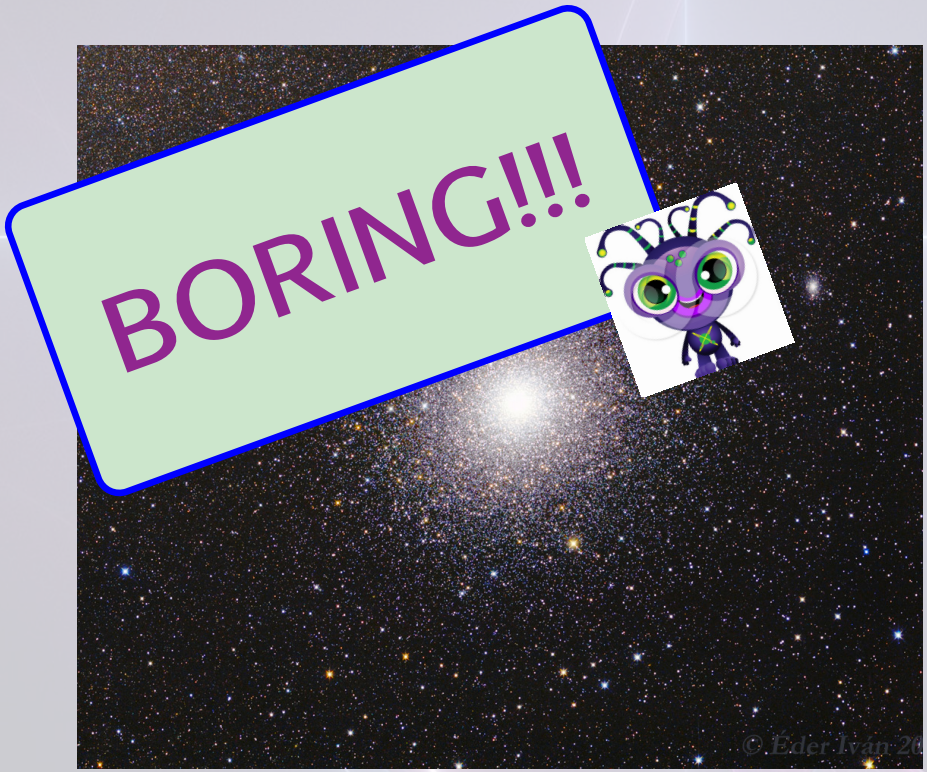

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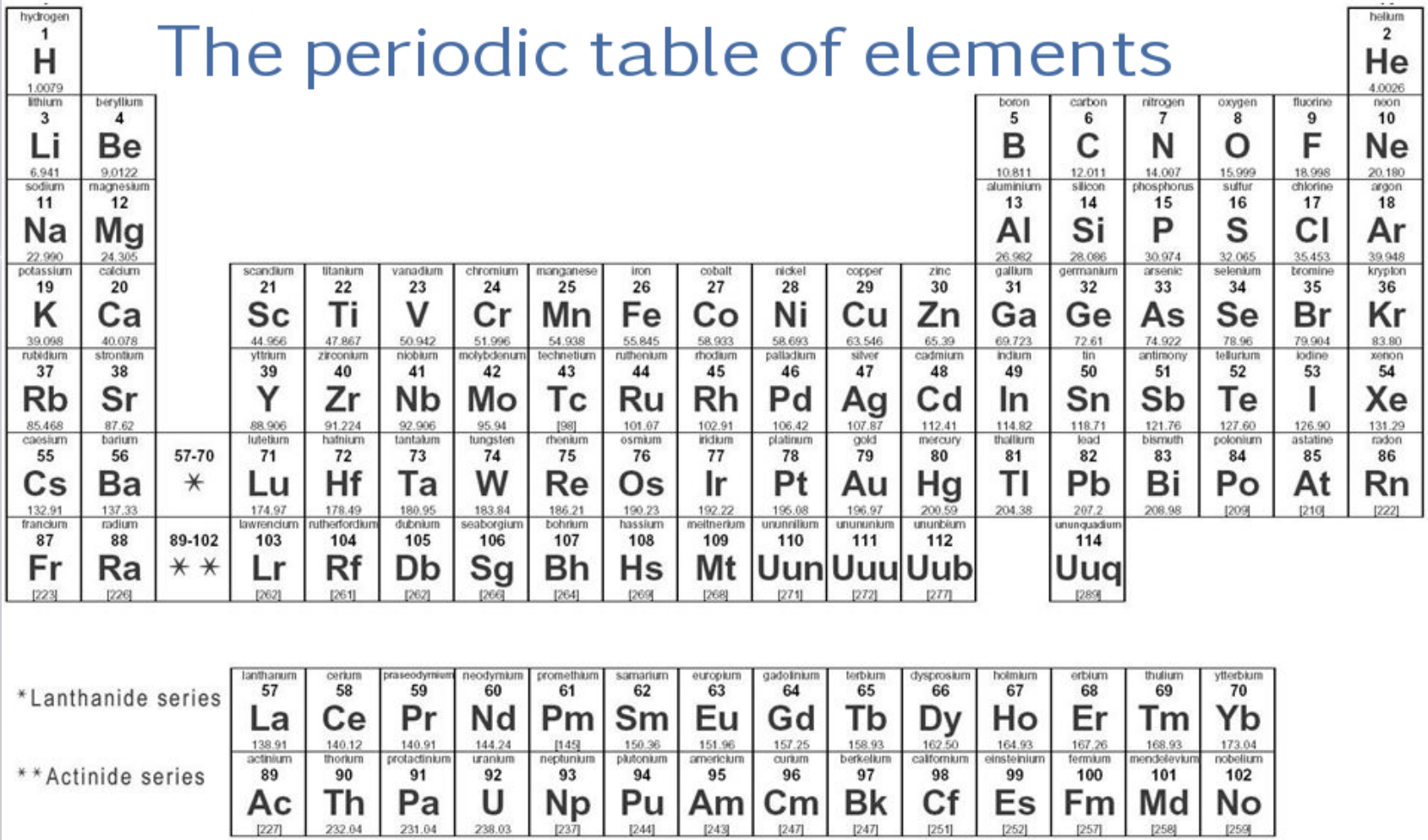

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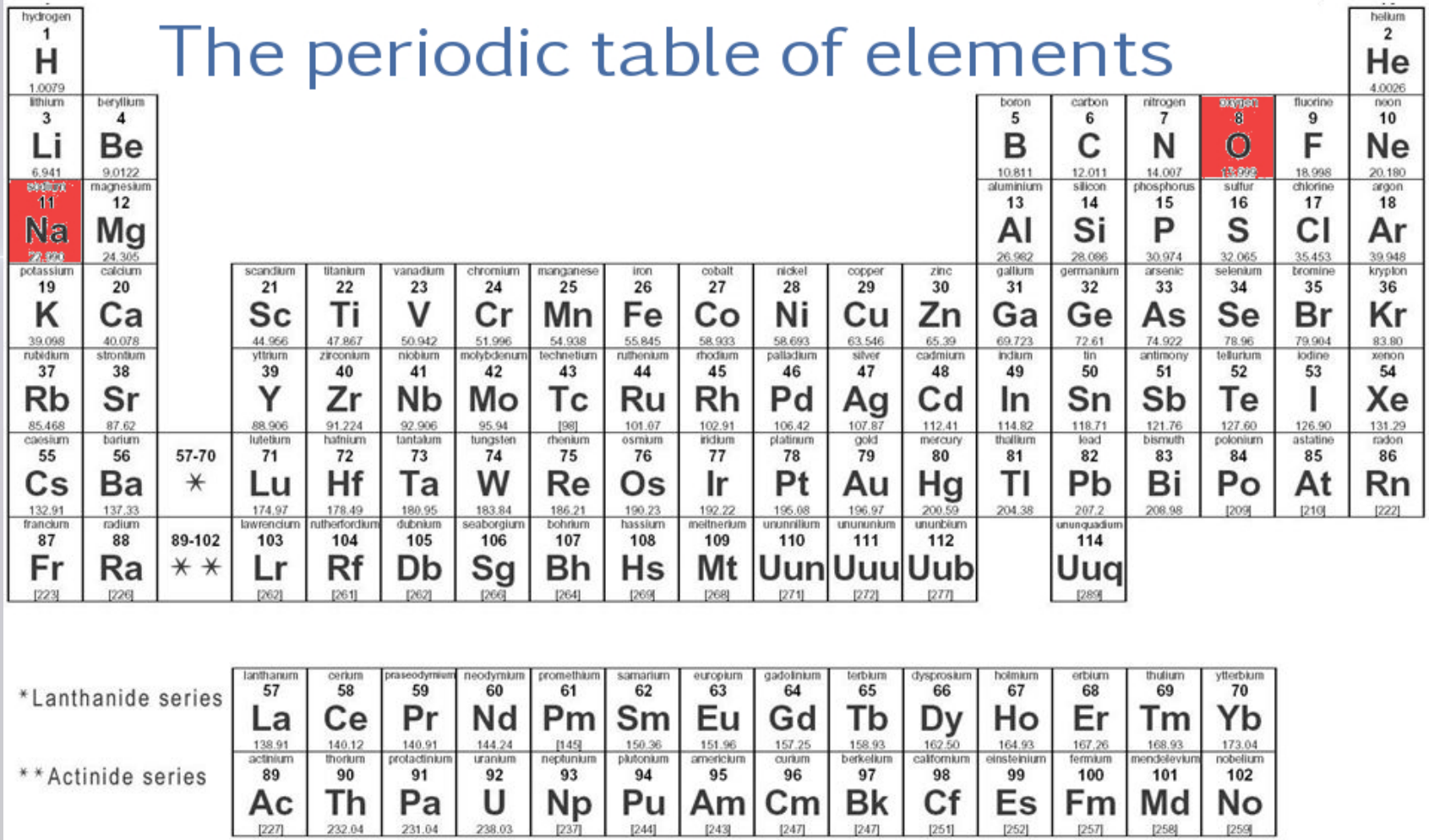

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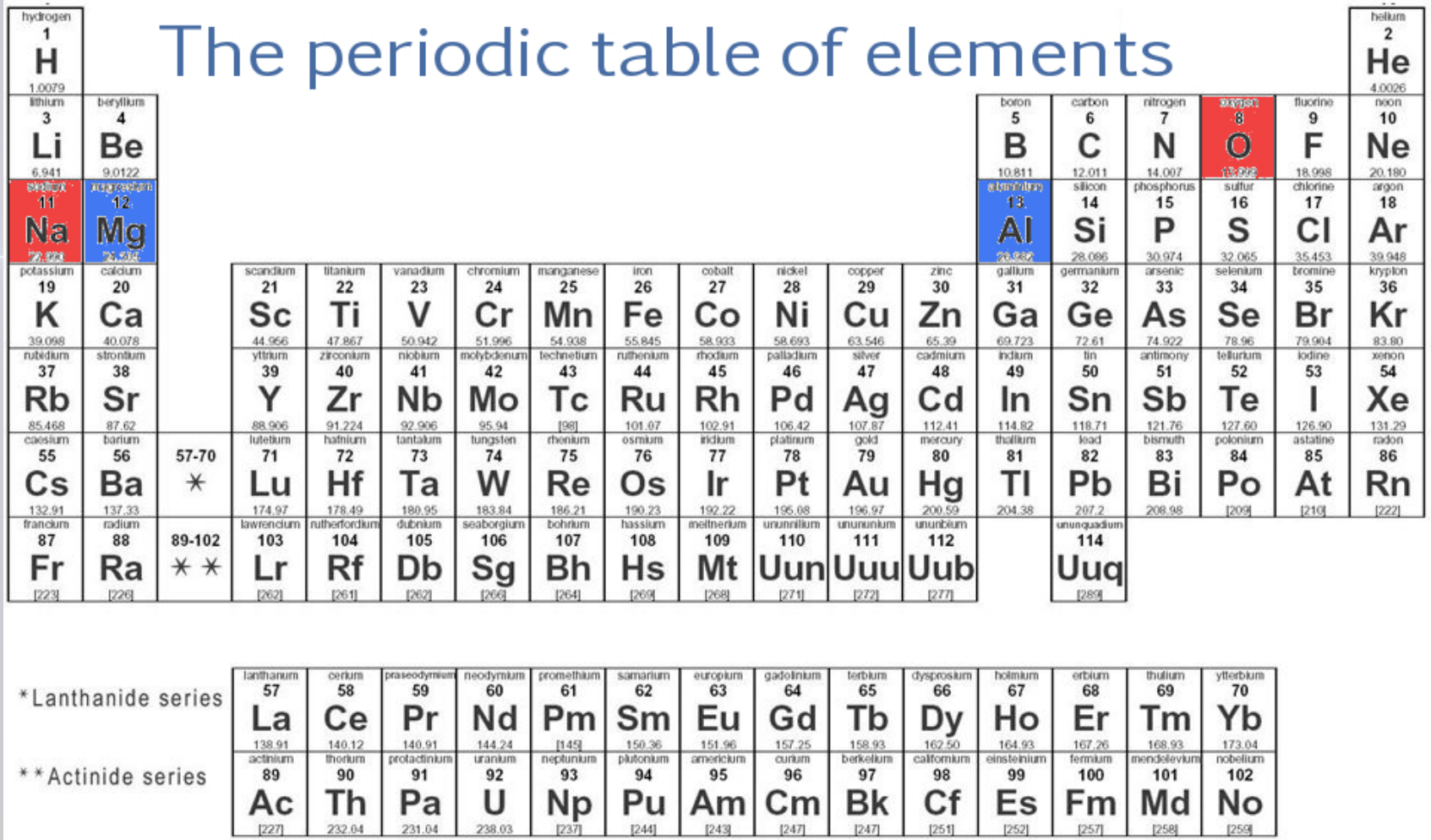

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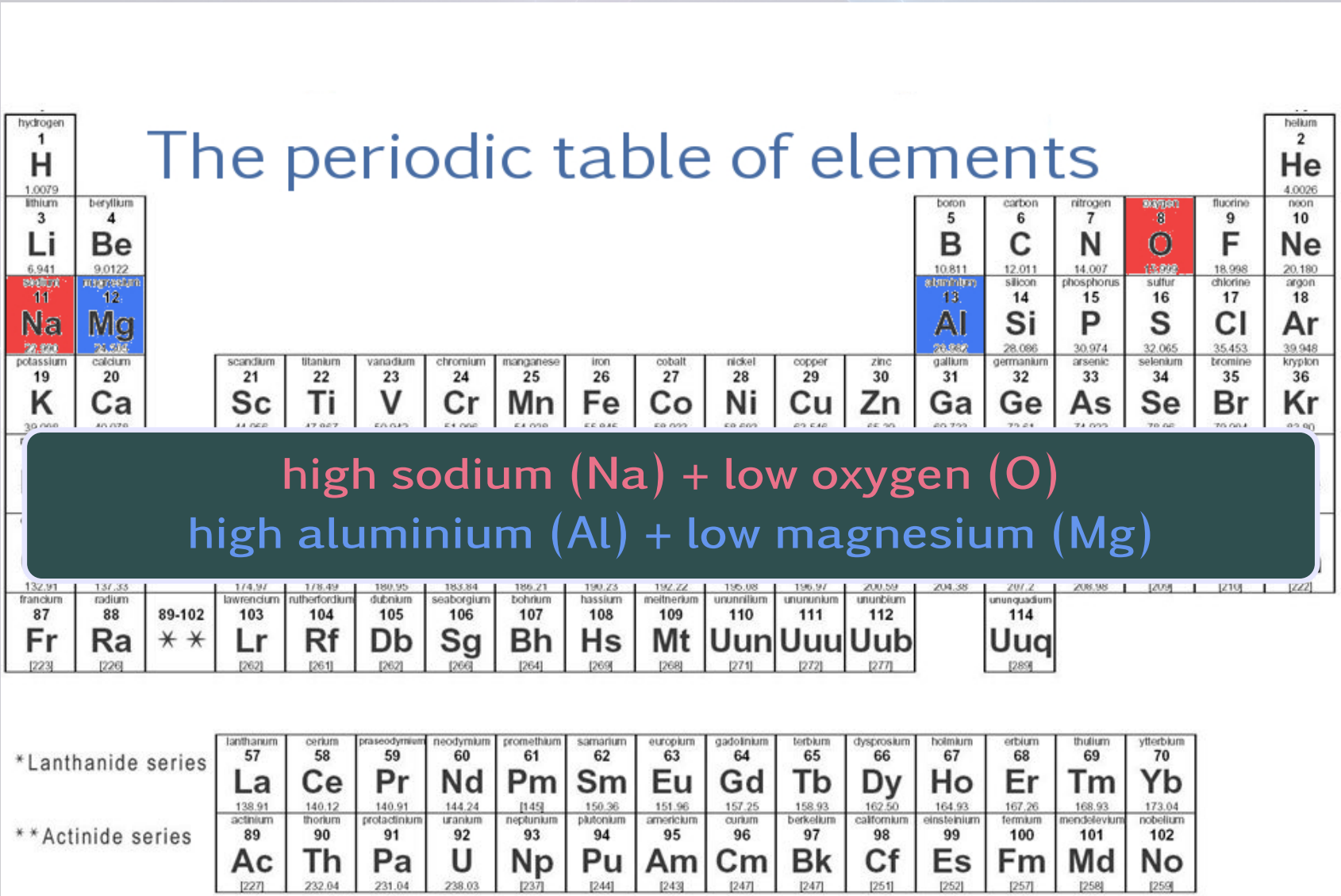

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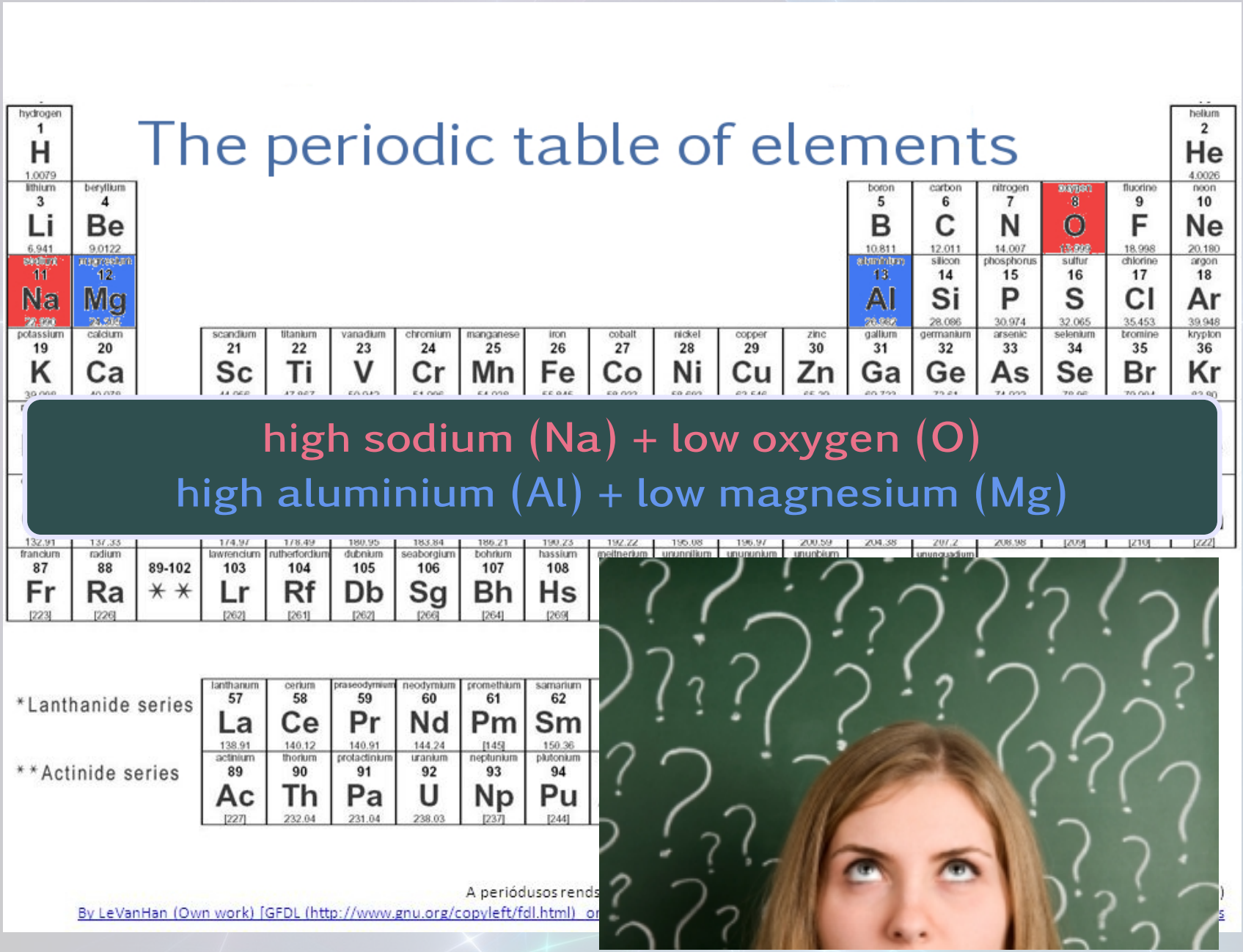

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In Sun-like stars at least.

high sodium (Na) + low oxygen (O)
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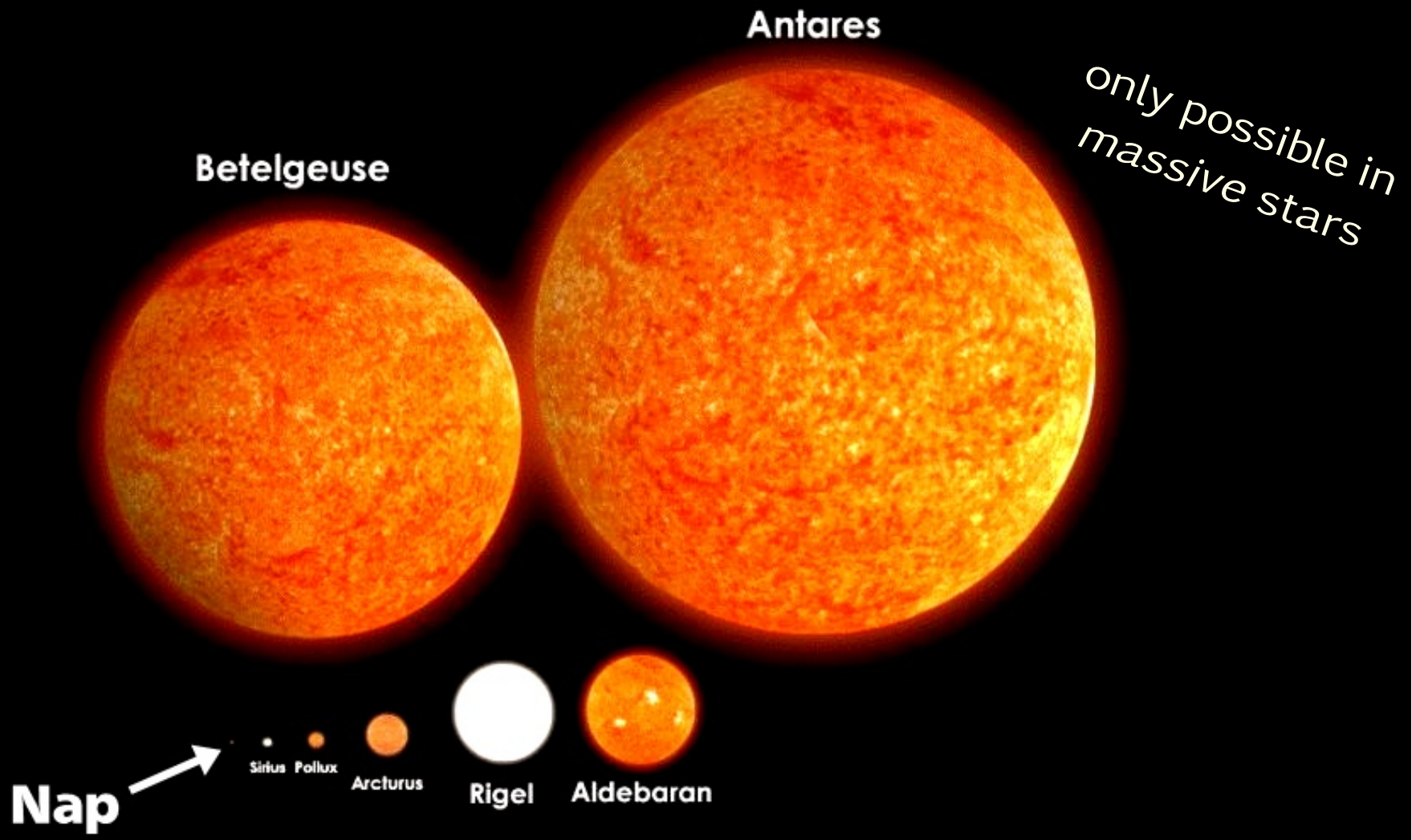

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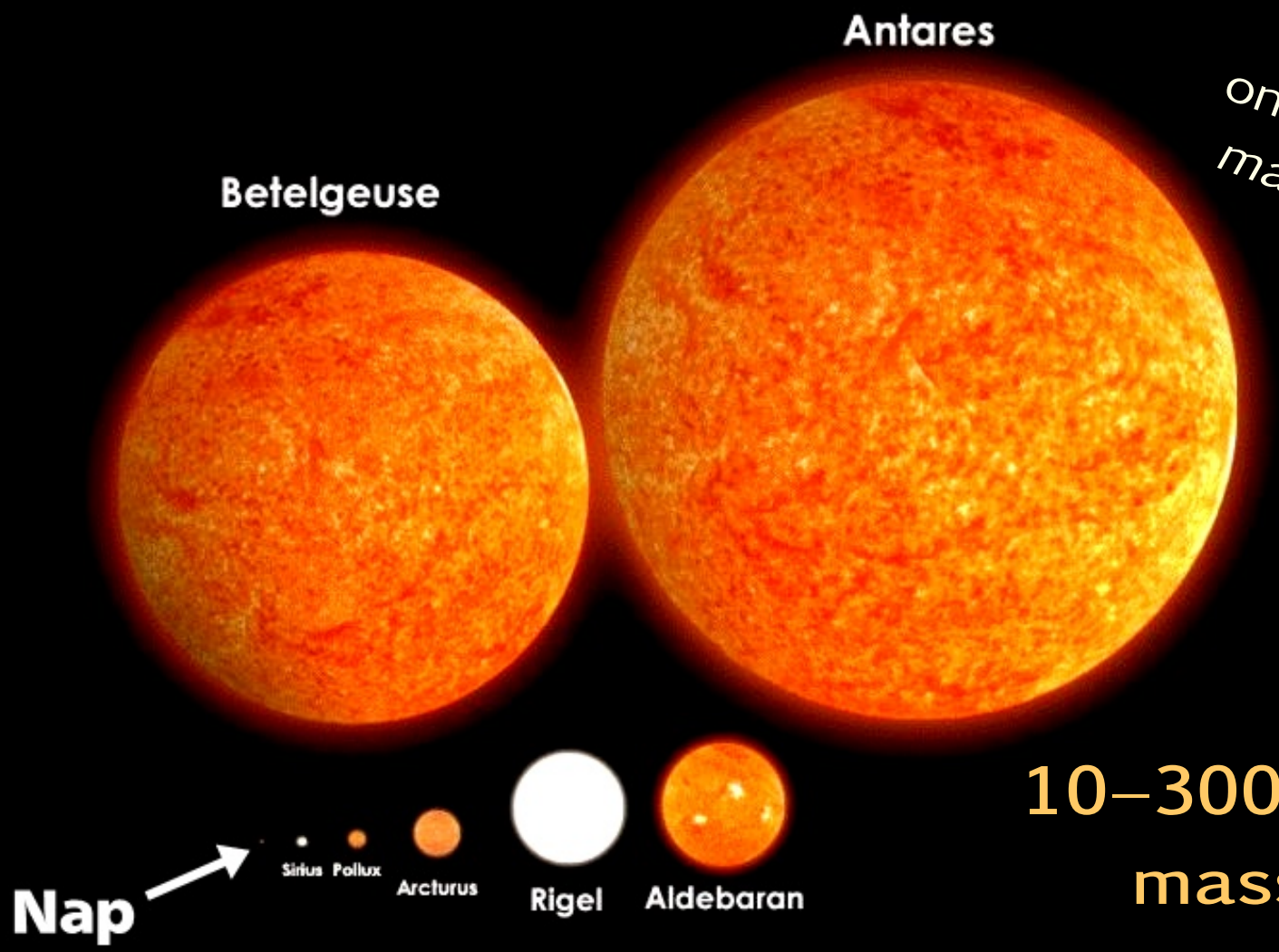

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This is getting exciting... ;)

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Supergiant Shells forming new stars

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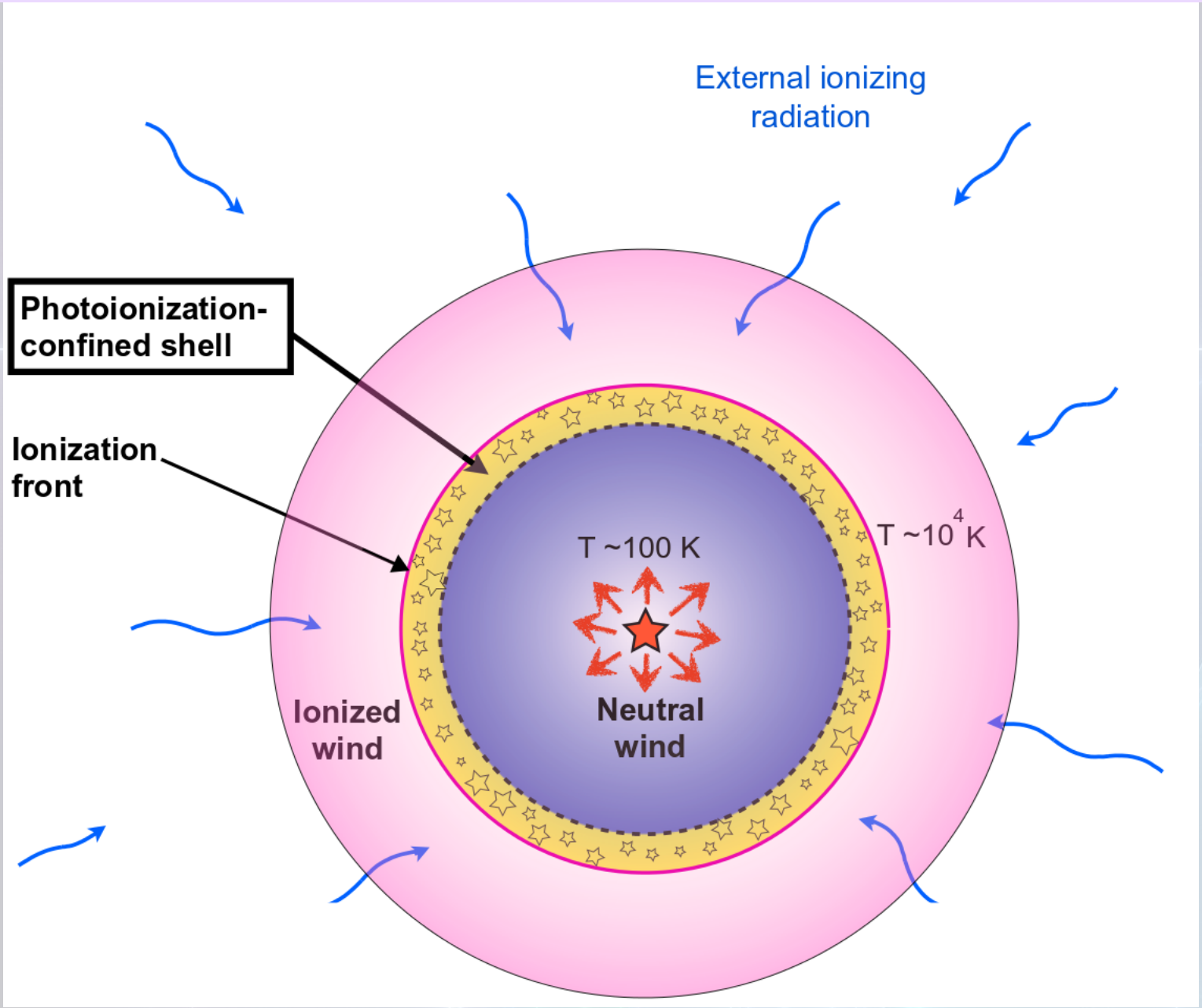
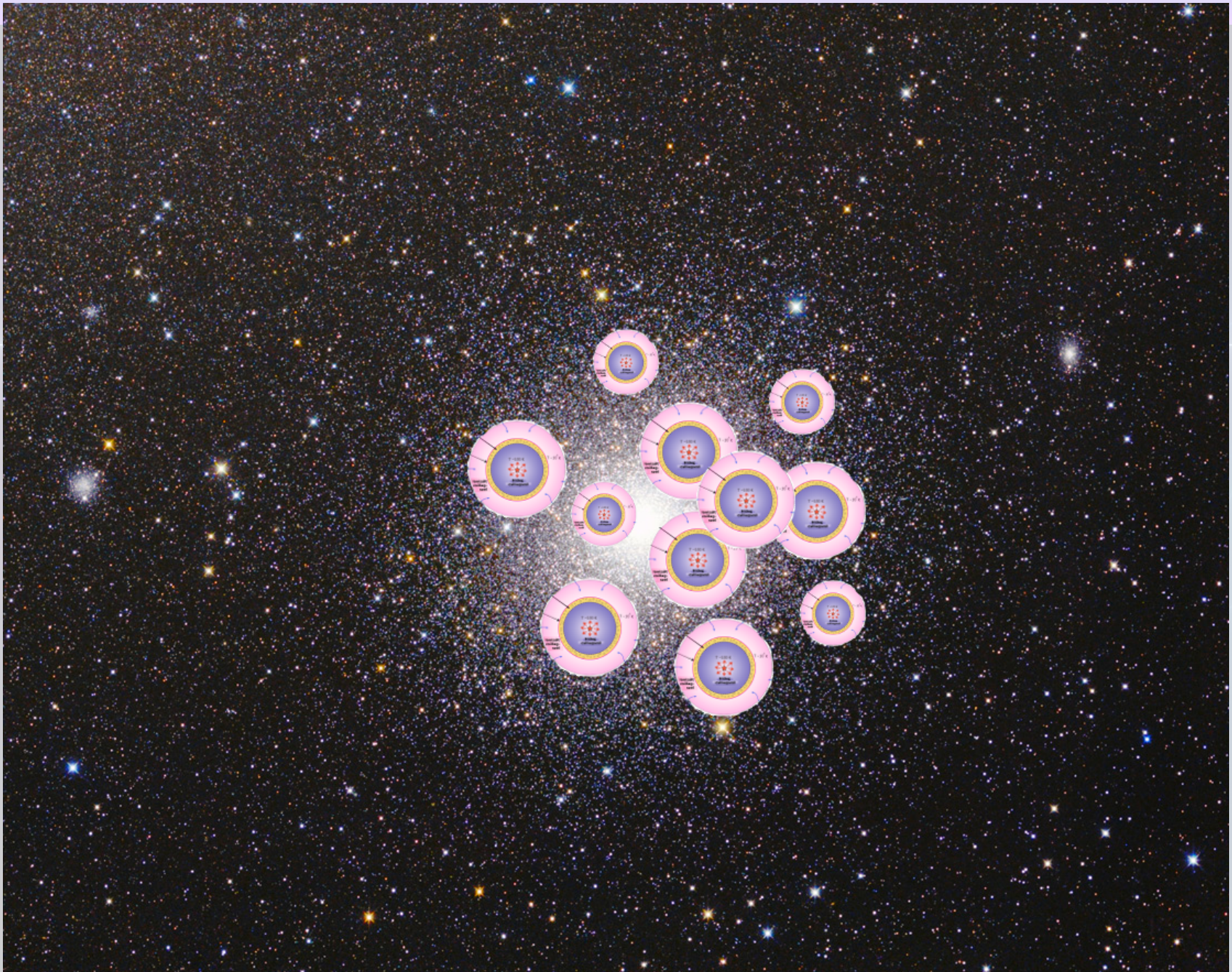
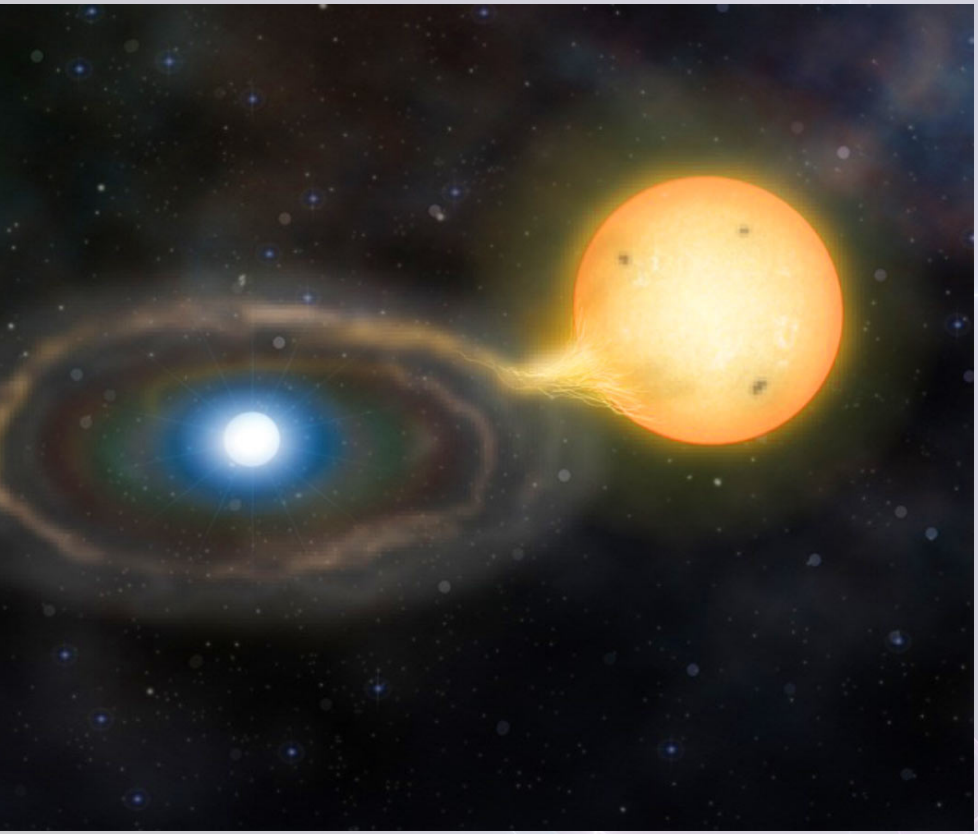


This is how GCs might have been born:



Alternative theories... ‘dancing’ stellar couples:



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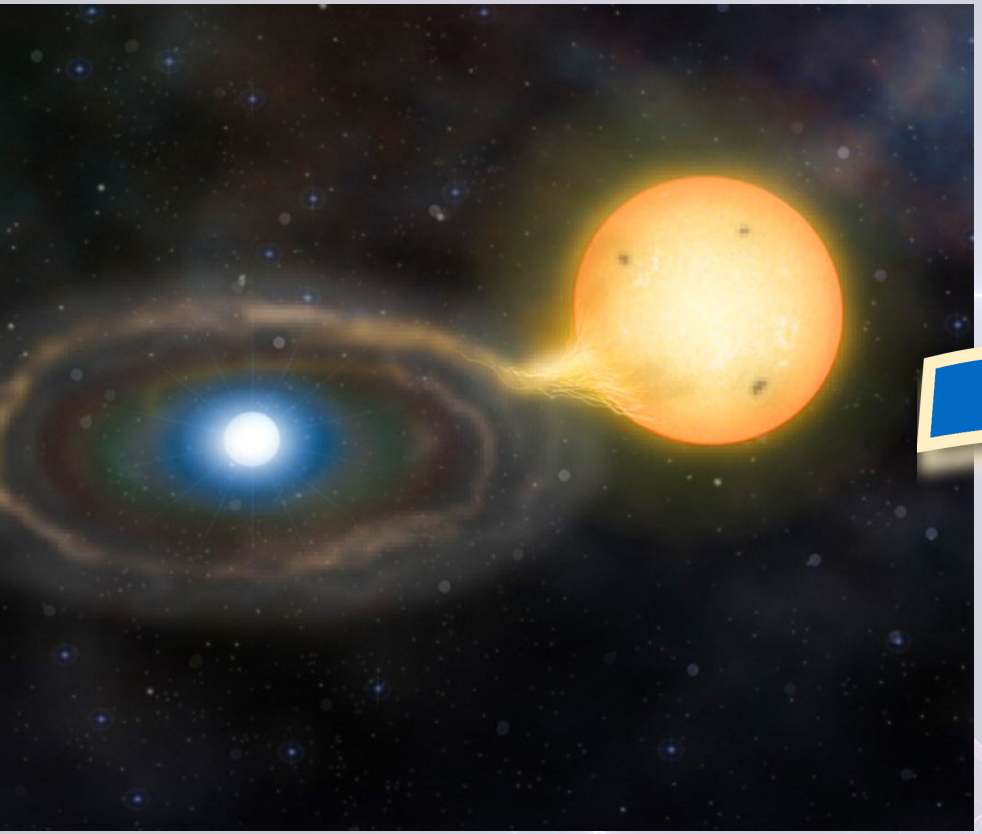

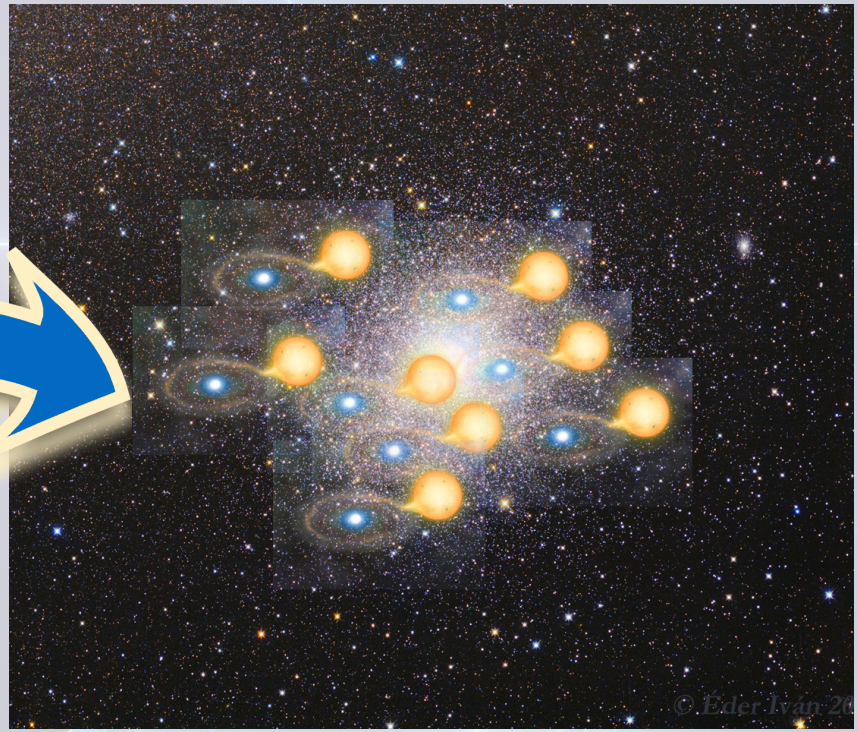

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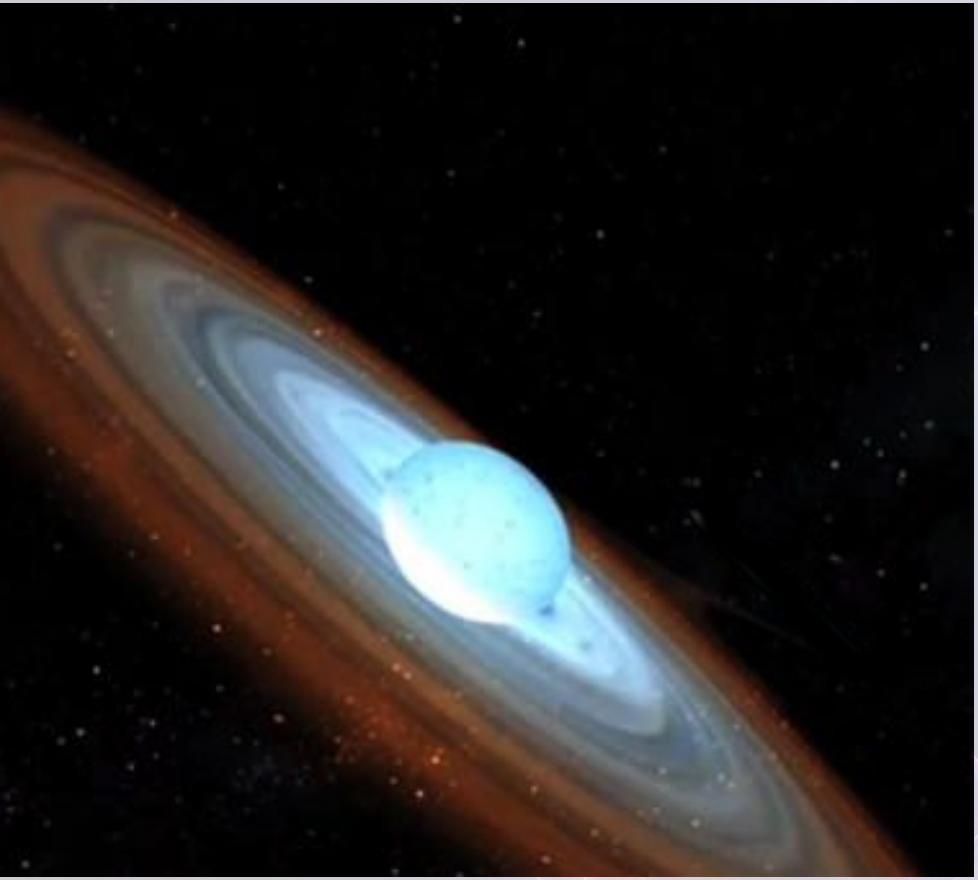

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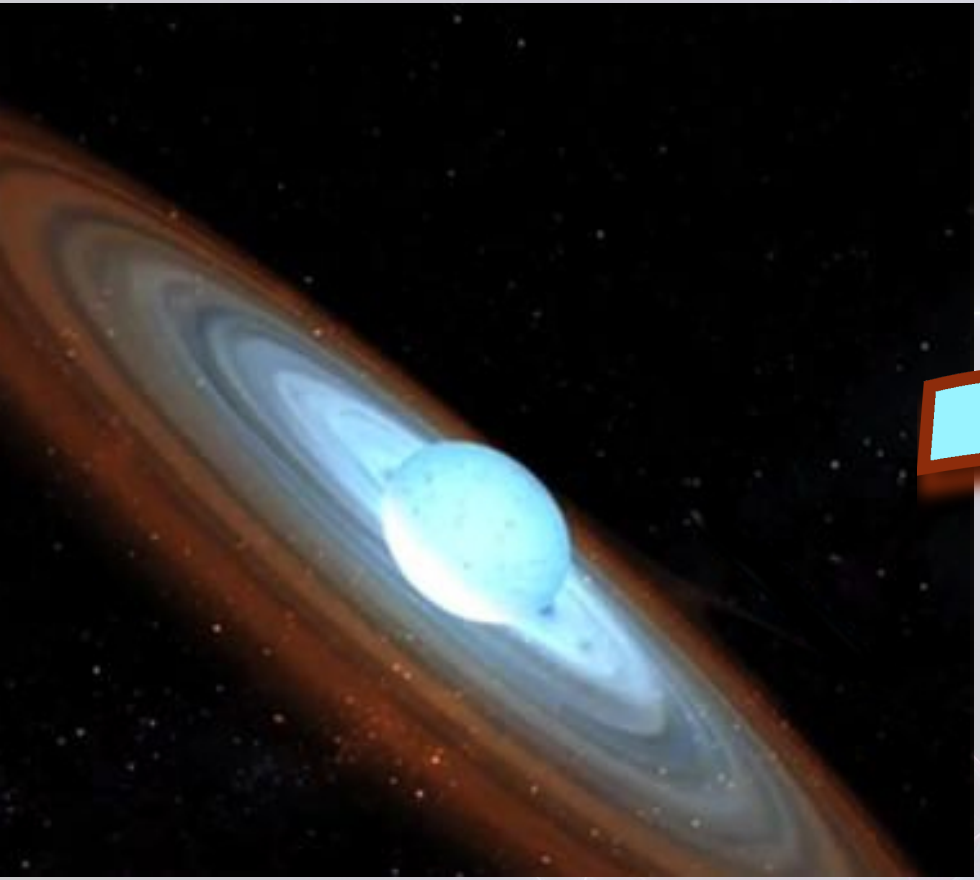

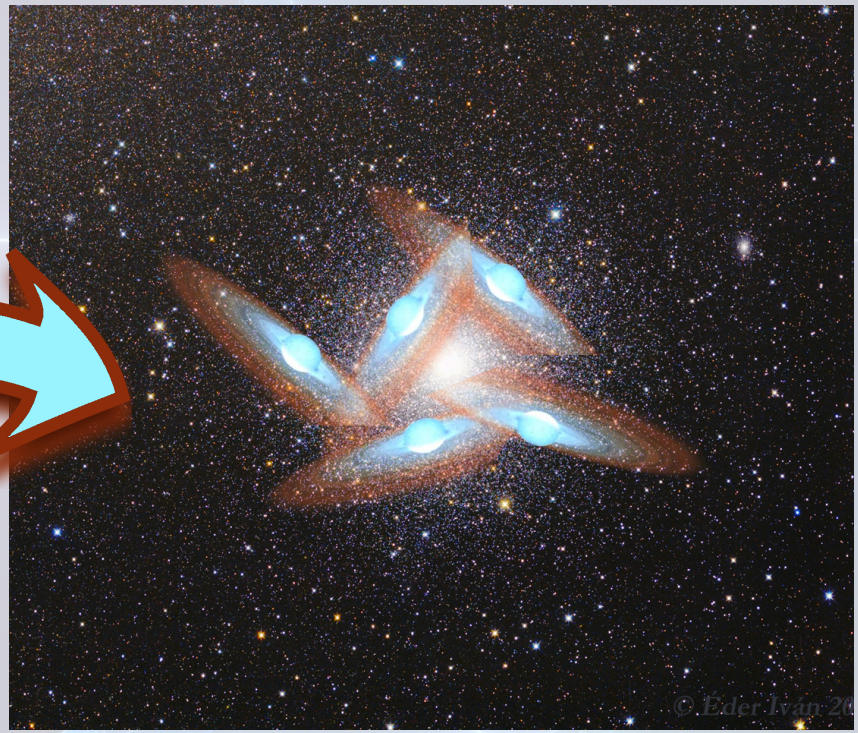

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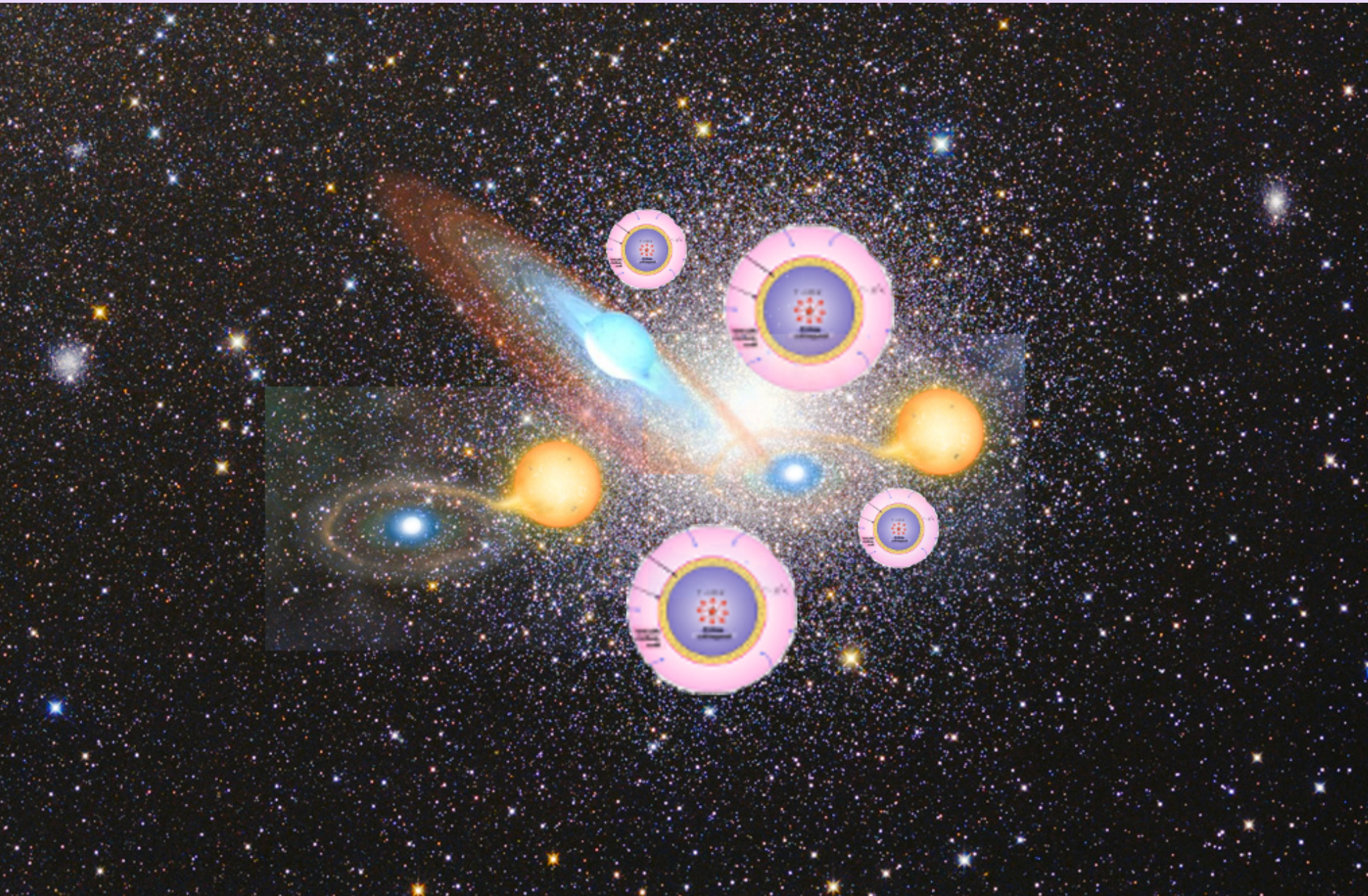

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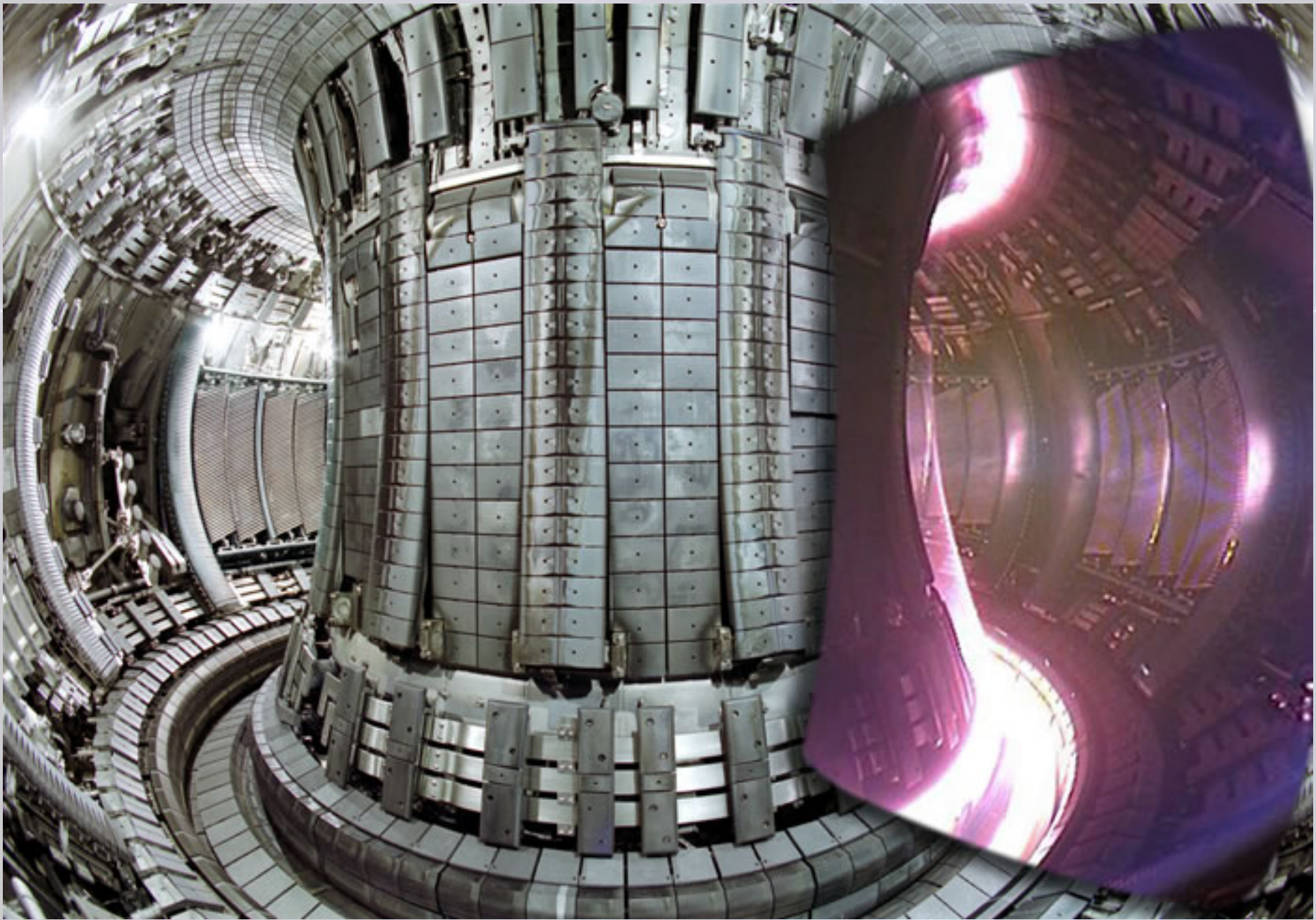

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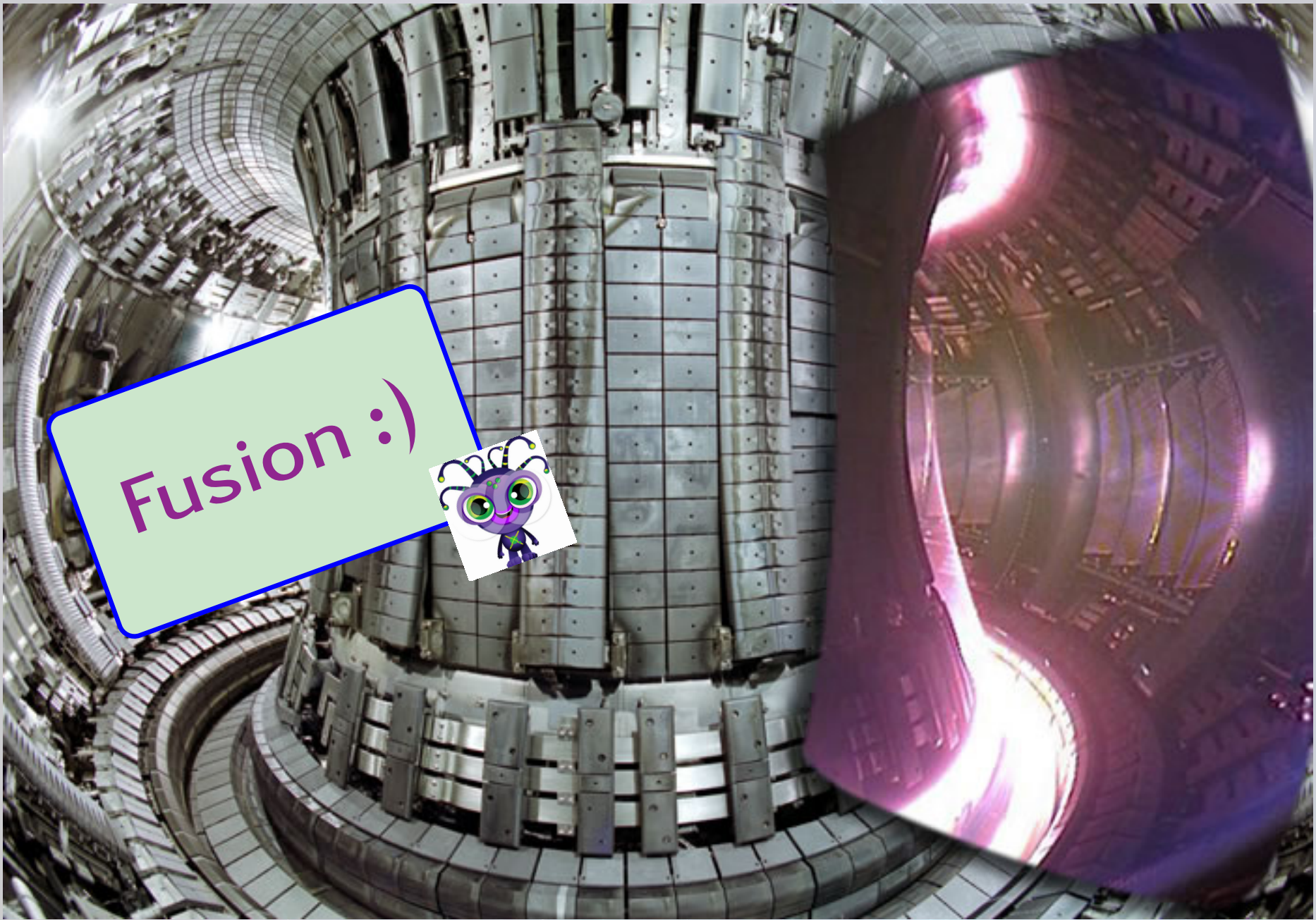

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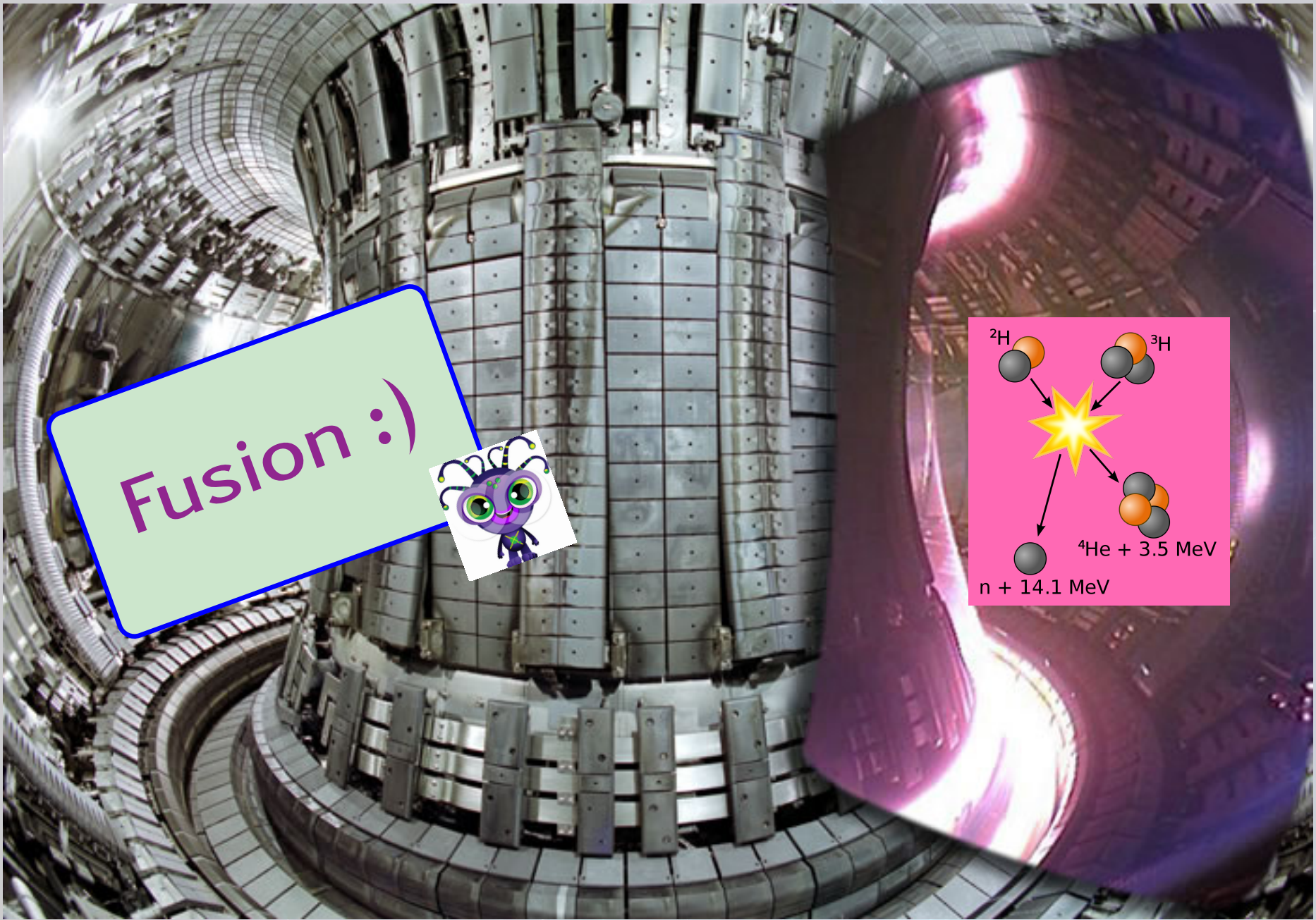

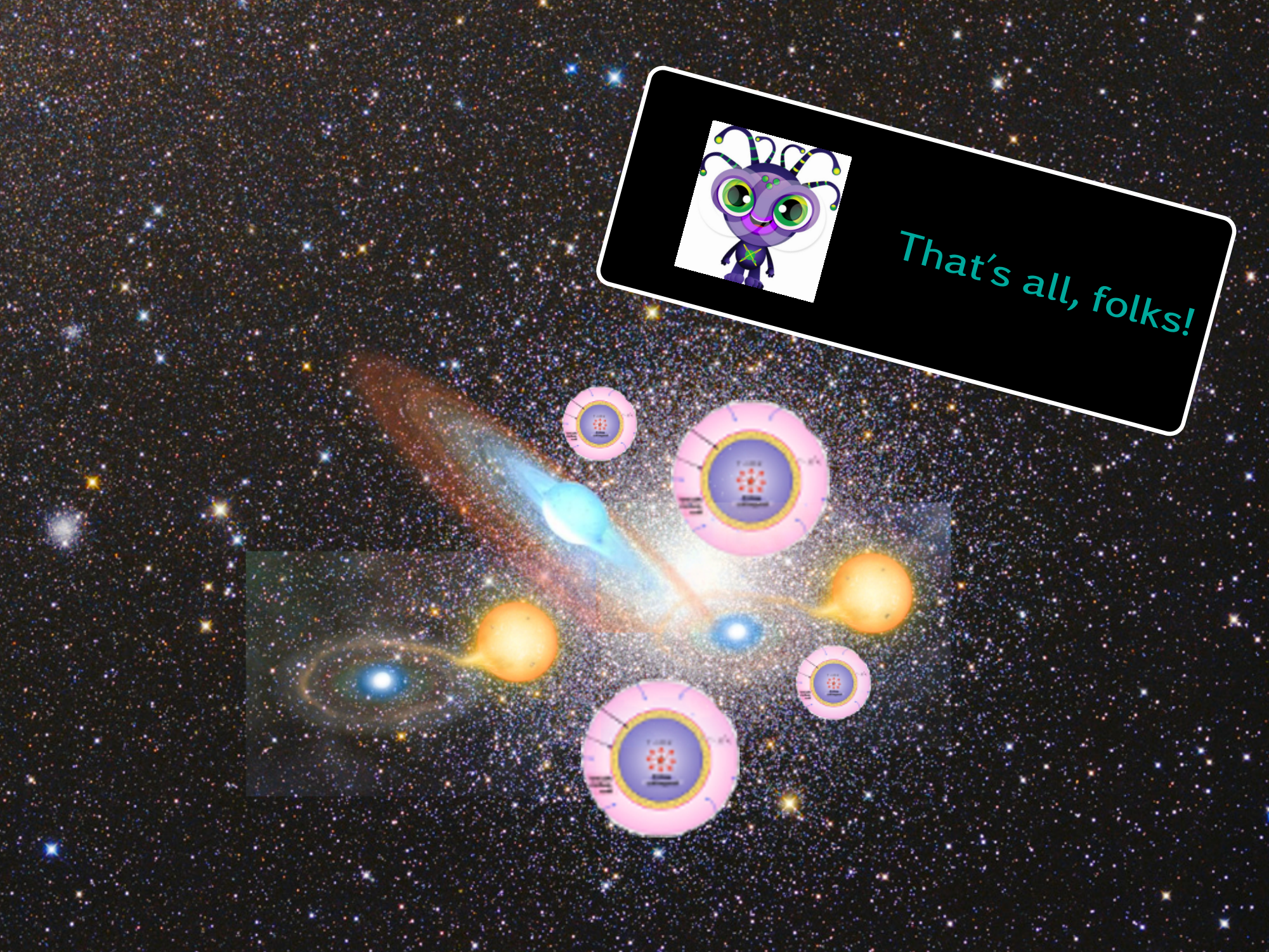
That's all, folks!