

Spiral Galaxies

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Overview

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- What are spiral galaxies?

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- Structure

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- Famous spiral galaxies

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- Galaxy formation

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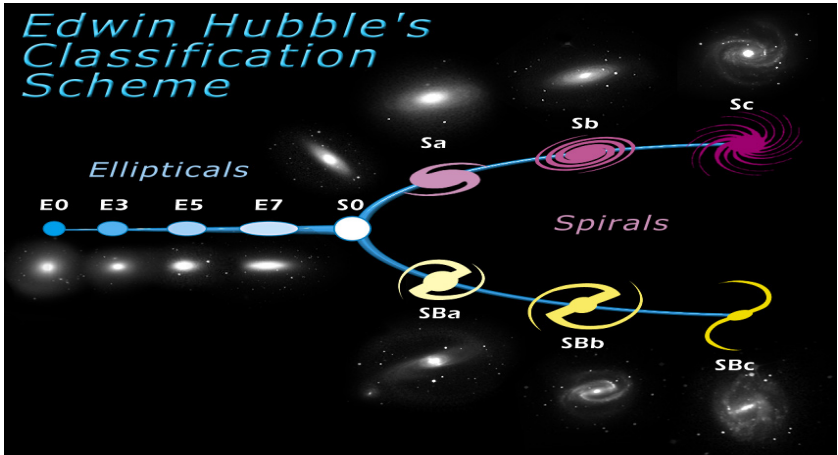
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- Ex: Sc, SBa, Sb

Hubble Sequence



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Grand-design



Flocculent



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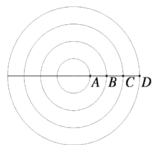
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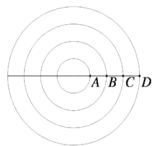
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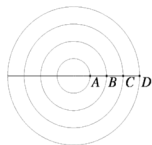


- Spiral at zero position
- Spiral at final position

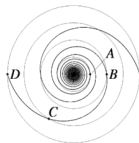
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Famous spiral galaxies

Name	Designation	Classification	App. Mag.
Milky Way	N/A	SBc	N/A
Andromeda	M31	SA(s)b	4.36
Pinwheel	M101	SAB(rs)cd	8.3
Whirlpool	M51	SA(s)bc pec	9.0
Sombrero	M104	SA(s)a	9.0
Black Eye	M64	(R)SA(rs)ab	9.4

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The Milky Way

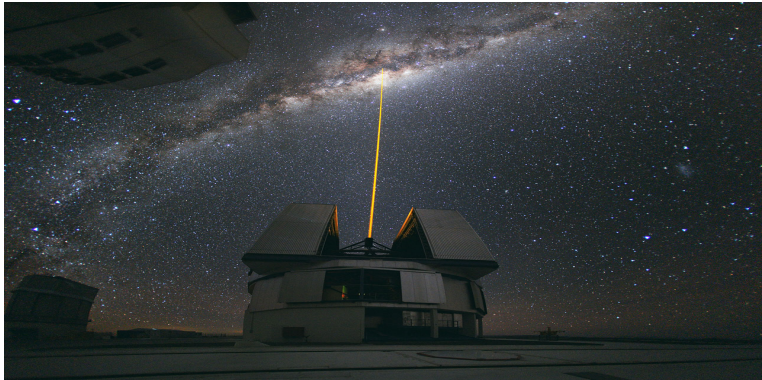


Figure : European Southern Observatory: Paranal, Chile

The Andromeda Galaxy (M31)



The Pinwheel Galaxy (M101)



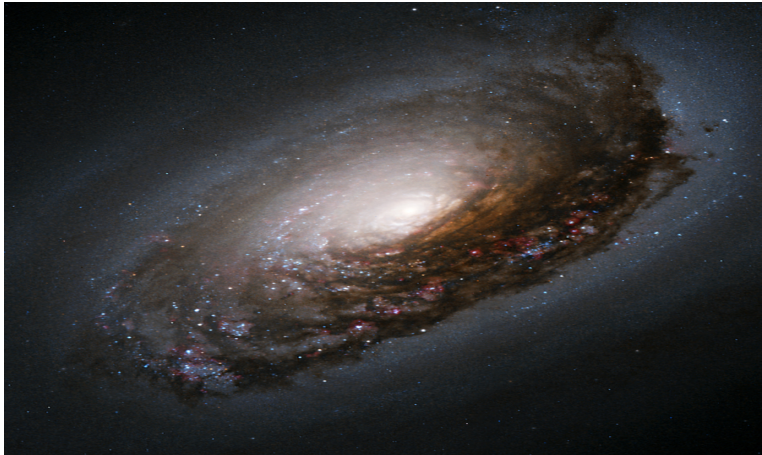
The Whirlpool Galaxy (M51)



The Sombrero Galaxy (M104)



The Black Eye Galaxy (M64)



Galaxy formation



References

- ESO. (2013). *Image archive: Paranal*. Retrieved from <http://www.eso.org/public/images/archive/category/paranal/>
- Kuntz, K. D., Bresolin, F., Trauger, J., Mould, J., & Chu, Y. H. (2010). *Hubble space telescope*. Retrieved from hubblesite.org
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