

The Milky Way (Part I)

ASTR 1220, Summer 2010

26 July 2010

Outline

Bennett Ch 19

Our understanding of the Milky Way

Structure of the Milky Way

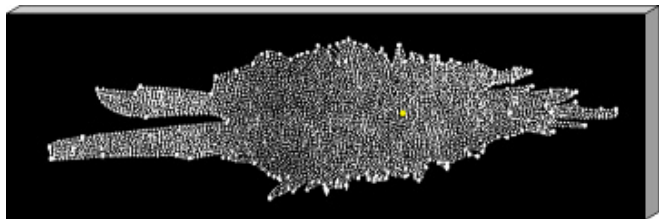
Gas recycling & Enrichment

The Milky Way at different wavelengths

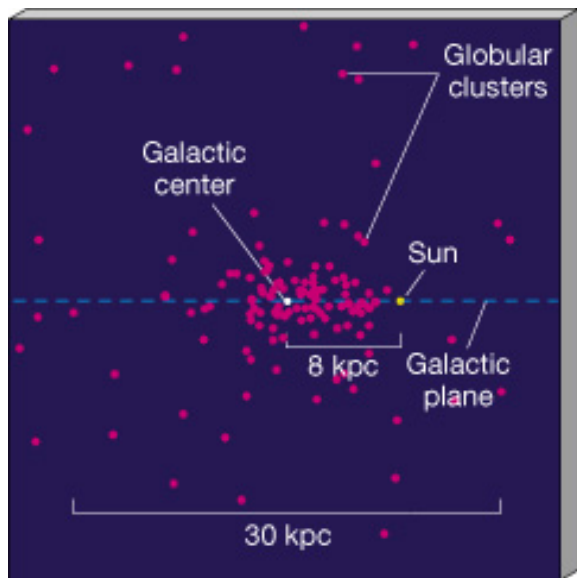
Milky Way time-lapse

Milky Way rising over Cerro Armazones (Youtube)

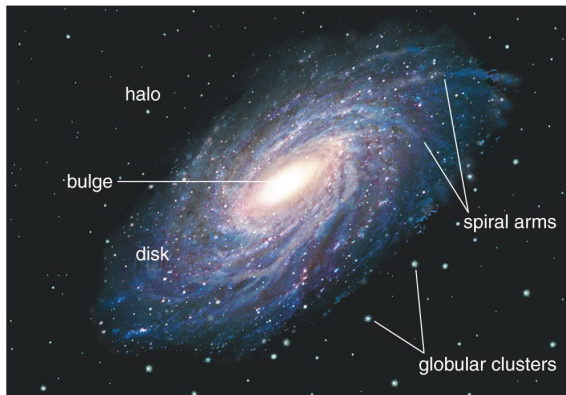
Herschel's View



Shapley - Globular Clusters



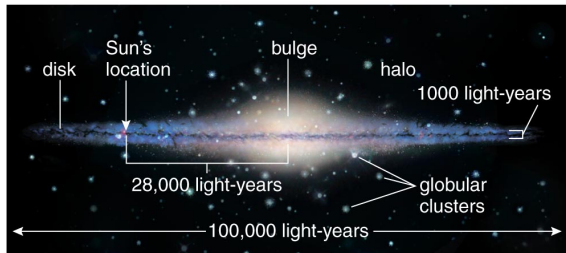
Milky Way - Current View



a Artist's conception of the Milky Way viewed from the outside.

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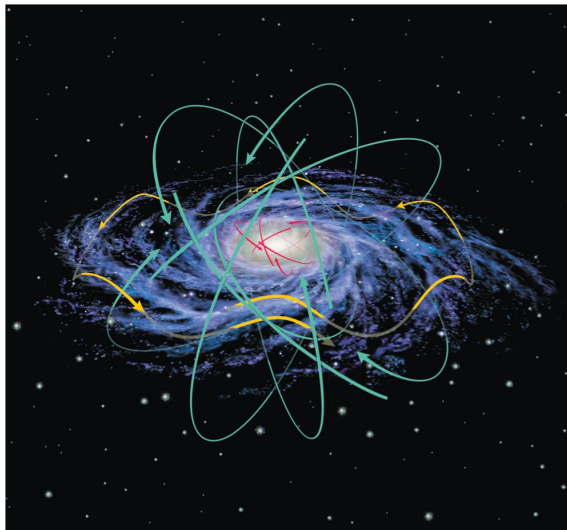
Milky Way - Current View



b Edge-on schematic view of the Milky Way.

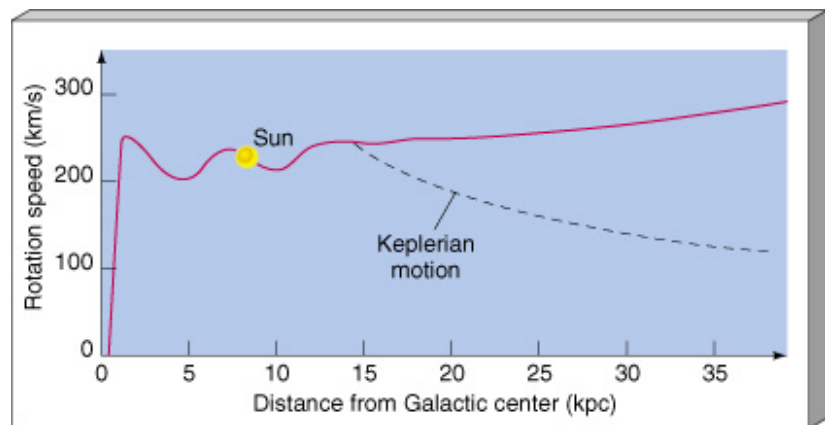
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Milky Way - Disk and Halo

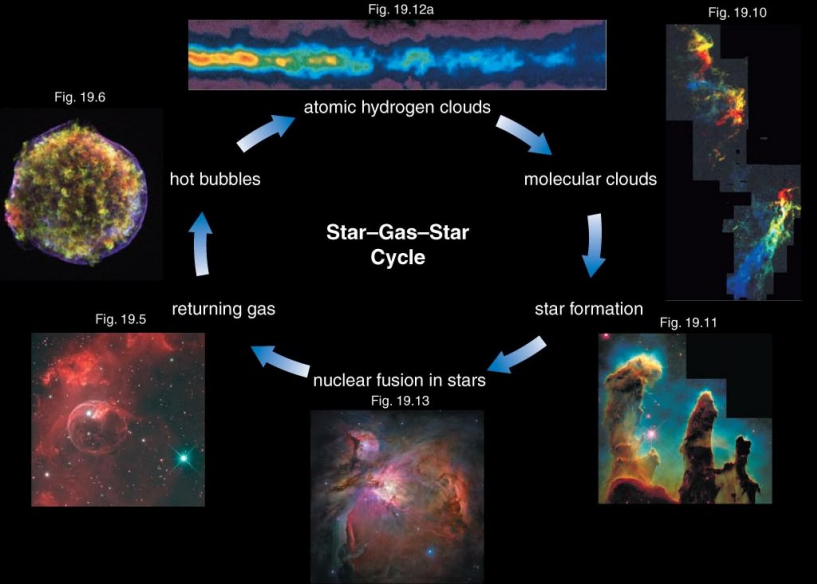


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Milky Way - Rotation



Gas Cycle



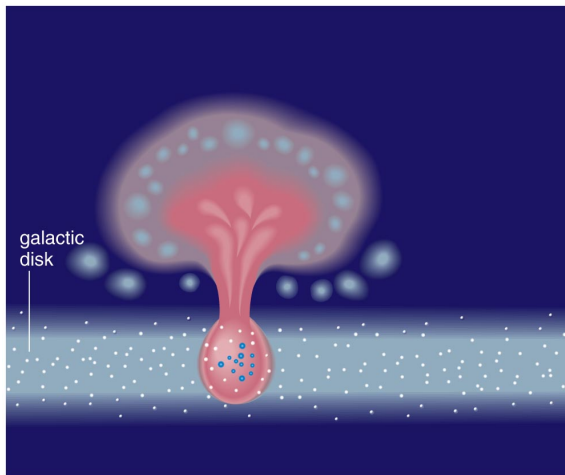
Star forming regions

Orion Nebula Flyby

Supernova Enrichment

Cassiopeia A at multiple wavelengths

Galactic Fountain



a The galactic fountain model.

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Multiwavelength view of the Milky Way

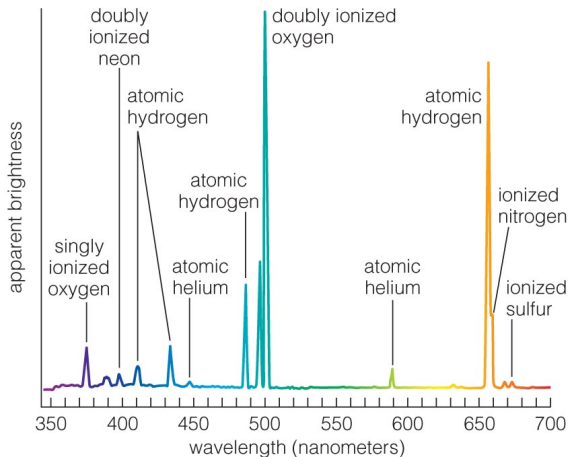
Chromoscope.net

Star forming regions



a A Hubble Space Telescope photo of the Orion Nebula, an

Star forming regions



b A spectrum of the Orion Nebula. The prominent emission lines reveal the atoms and ions that emit most of the light. Through careful study of these lines, we can determine the nebula's chemical composition.