

The Milky Way (Part II)

ASTR 1220, Summer 2010

27 July 2010

Outline

Bennett Ch 19

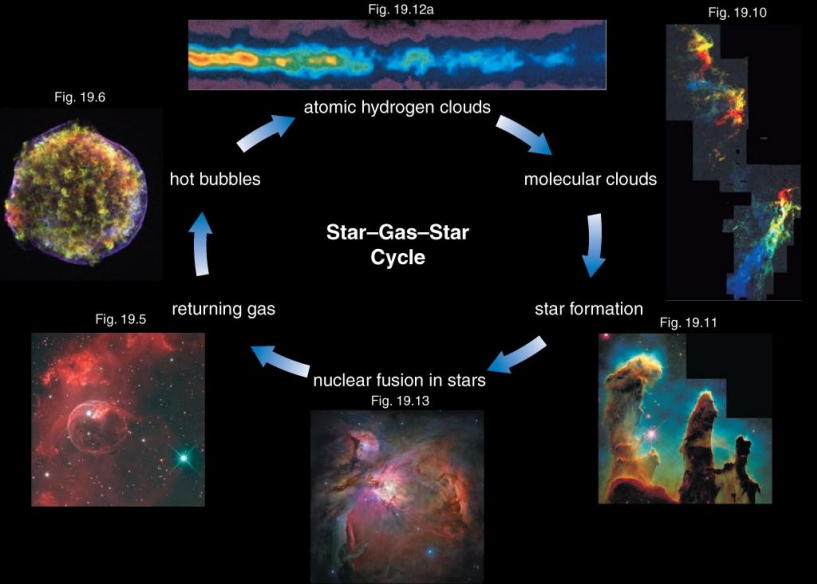
Gas recycling & Enrichment

The Milky Way at different wavelengths

Formation of the Milky Way

Center of the Milky Way

Gas Cycle



Star forming regions



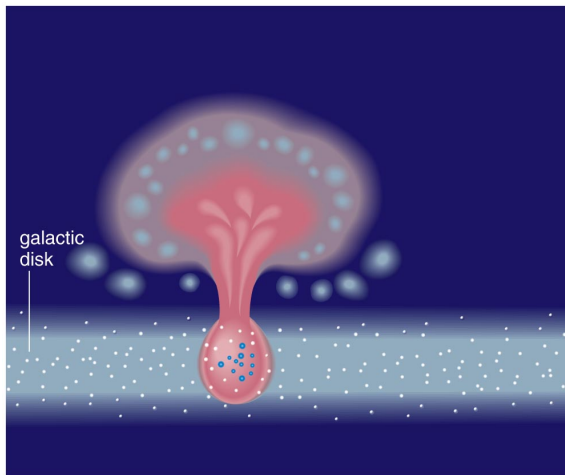
Star forming regions

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

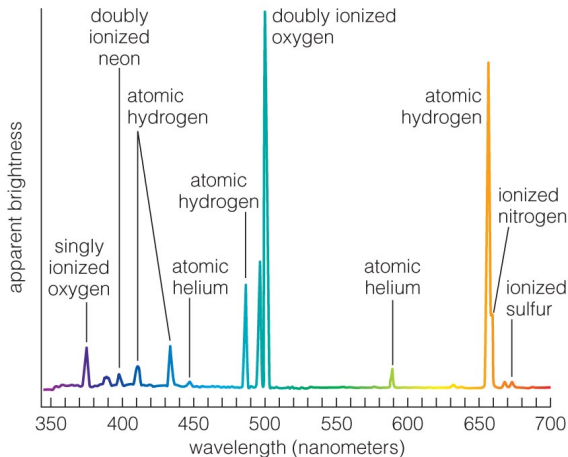
Multiwavelength Milky Way from Bennett

Star forming regions



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

Star forming regions

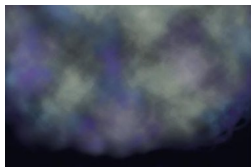


b A spectrum of the Orion Nebula. The prominent emission lines reveal the atoms and ions that emit most of the light. Through careful study of these lines, we can determine the nebula's chemical composition.

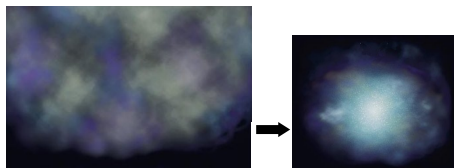
Spiral Arms

Spiral Arm pattern

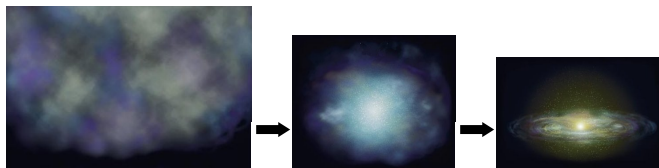
Collapse model



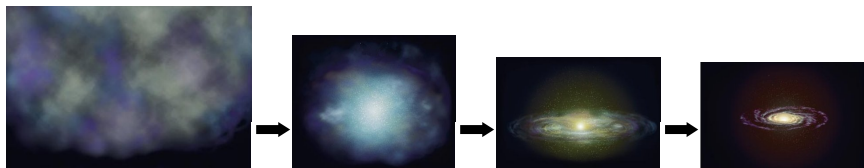
Collapse model



Collapse model



Collapse model



Ongoing accretion

Via Lactea simulation of a a Milky Way sized dark matter halo

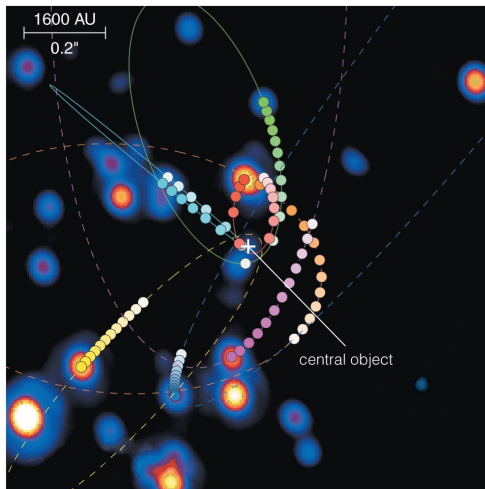
Simulation with gas

Tidal Tails (bottom of page)

Milky Way center

Milky Way Zoom

Stellar Orbits



Time-lapse of actual images
Animation of the stellar orbits