

Astronomy 250: The Formation of Stars

Fall 2010

11:00 am – 12:30 pm Tuesday, Thursday
501 Campbell

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Text (required): Stahler & Palla *The Formation of Stars* (Wiley, 2004)

Lecture	Date	Topic	Reading: Chapter/Section
1	8/26	Overview	1
2	8/31	Interstellar Gas and Dust	2.1, 2.3, 2.4
3	9/2	Giant Molecular Clouds	3.1, 3.2
4	9/7	Dense Cores	3.3
5	9/9	Embedded Stellar Groups	4.1, 4.2
6	9/14	OB Associations and Open Clusters	4.3, 4.4
7	9/16	The Initial Mass Function	4.5
8	9/21	Cloud Heating and Cooling	5.1-5.4, 7.1, 7.2
9	9/23	Spherical and Rotating Clouds	9.1, 9.2
10	9/28	Magnetized Clouds	9.3, 9.4
11	9/30	MHD Waves and Ambipolar Diffusion	9.5, 10.1
12	10/5	Spherical Collapse	10.2, 12.1
13	10/7	Collapse: Rotation and B-Fields	10.3, 10.4, 11.3
14	10/12	Protostars: Main Accretion Phase	11.1, 11.2
15	10/14	Protostars: Theory vs. Observation	11.4, 11.5

16	10/19	Fragmentation and Young Binaries	12.2, 12.3
17	10/21	Origin of Clusters	12.4, 12.5
18	10/26	Stellar Winds and Jets	13.1, 13.3, 13.4
19	10/28	Molecular Outflows	13.2, 13.5
20	11/2	Interstellar Masers	14.1, 14.2
21	11/4	HII Regions and Hot Cores	15.1, 15.2
22	11/9	Quasi-Static Contraction	16.1, 16.2, 16.3
	11/11	Veterans Day Holiday	
23	11/16	Brown Dwarfs	16.4
24	11/18	T Tauri Stars: Basic Properties	17.1, 17.2
25	11/23	T Tauri Stars: Disks and Variability	17.3, 17.4
	11/25	Thanksgiving Holiday	
26	11/30	Herbig Ae/Be Stars	18.1, 18.2
27	12/2	Planet Formation	17.5
28	12/7	Star Formation in Nearby Galaxies	19.1, 19.2
29	12/9	Starbursts and Protogalaxies	19.3, 19.4