

Referatsthemen und Termine zur VL Sternentstehung, Wintersemester 2012/13

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Terminplan

Datum	Name	Thema
21.11.2012	Evangelos Nagel	Eigenschaften und Entwicklung von Sternhaufen
28.11.2012	Lennart Heino	Entwicklungsstadien von Protosternen
05.12.2012	Johannes Wein	Erste Sterne
12.12.2012	Benjamin Vornath	Kollaps von Gasklumpen
09.01.2013	Svenja Schumann	ISM
09.01.2013	Christian Ziemann	Röntgen-Astronomie
16.01.2013	Jianqiang Lai	TBA
23.01.2013	Nazil Ünal	Entstehung massereicher Sterne
30.01.2013	Bente Maassen	Gasausflüsse von Protosternen

- Vortrag: 20 – 25 Minuten (Bewertung auf Basis von Vortrag + Folien)
- Lehrbücher
 - Schulz, *The Formation and Early Evolution of Stars*, 2012
 - Bodenheimer, *Principles of Star Formation*, 2011
 - Ward-Thompson & Whitworth, *An Introduction to Star Formation*, 2011
 - Stahler & Palla, *The Formation of Stars*, 2004
 - Bally & Reipurth, *The Birth of Stars and Planets*, 2006
 - Larson, *The physics of star formation*, Report 2003

- Weigert, Wendker & Wisotzki, *Astronomie und Astrophysik*, 2009
- Unsöld & Baschek, *Der Neue Kosmos*, 2006
- Shu, *The Physics of Astrophysics, II*, 1992
- Mögliche Themen mit Literaturangaben
 - **Interstellares Medium (ISM): Zusammensetzung, Dynamik, Geschichtliches** (Weigert et al., 2009; Breitschwerdt, 1998)
 - **Molekülwolken und Turbulenz** (Mac Low & Klessen, 2004; Ballesteros-Paredes et al., 2007; Ballesteros-Paredes, 2004; Blitz et al., 2007; Lesieur, 1997)
 - **Initial Mass Function (IMF)** (Kroupa, 2002; Kroupa & Boily, 2002; Bonnell et al., 2007)
 - **Kollaps von Gasklumpen** (Larson, 1969; Penston, 1969; Shu, 1977; Bonnor, 1956; Ebert, 1955)
 - **Entstehung massereicher Sterne** (Zinnecker & Yorke, 2007; Beuther et al., 2007; McKee & Ostriker, 2007)
 - **HII Regionen** (Stahler, 1994; Henney, 2007; Hoare, 2005; Churchwell, 2002)
 - **Magnetfelder (*mass-to-flux ratio*, **amipolare Diffusion**)** (Spitzer, 1998; Mouschovias & Spitzer, 1976)
 - **Magnetic braking** (Spitzer, 1998; Mouschovias & Paleologou, 1979; Mouschovias, 1979; Mouschovias & Paleologou, 1980)
 - **Gasausflüsse von Protosternen** (Blandford & Payne, 1982; Pudritz & Norman, 1983, 1986)
 - **Entwicklungsstadien von Protosternen** (Stahler, 1994; Andre et al., 2000; André, 1995; Bachiller, 1996)
 - **Eigenschaften und Entwicklung von Sternhaufen** (Weigert et al., 2009; Binney & Tremaine, 2008; Portegies Zwart et al., 2010)
 - **Entstehung der ersten Sterne** (Bromm et al., 2009; Abel et al., 2002; Glover, 2005)
 - **Röntgen-Astronomie** (Telleschi et al., 2007 (T-Tauri Sterne für Fortgeschrittene), Güdel & Nazé, 2009 (Kapitel 3), Robrade et al., 2011)

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